



Welcome



WELCOME TO THE R.R.M.C.H





A.C. Shanmugam B.A., LLB A.C.S.Arunkumar B.Tech(Hons),MBA
Chairman



Vice Chairman

MISSION AND VISION OF OUR FOUNDER CHAIRMAN

“All our dreams can come true

If we have the courage to pursue them!”

So young citizens,

Embrace your profession with sincerity, try to search the heart of others!

Plant a seed of hope in the barren lives of the downtrodden!

Let's join hands and be partners in progress!

Let there be progress with vision!

Let there be progress with innovation!

JAI HIND!



WELCOME DEPARTMENT OF PATHOLOGY

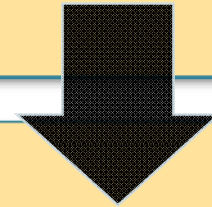


TO-WARDS ACHIEVING EXCELLENCE

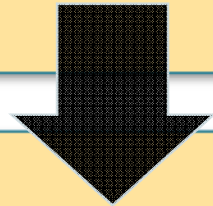


HISTORY OF OUR DEPARTMENT

Our college started in 2005 and
Department started in the year 2006.



Postgraduate course started in 2011



Our Blood Bank started in the year 2004
with a valid license up to 2014. The
license for component therapy received
in year 2011



Vision

- To provide students with a comprehensive knowledge of the mechanisms and effects of disease process.
- To facilitate patient care by optimizing accurate diagnostic tests for management and prevention of diseases



Mission

- To facilitate prompt and effective prevention , cure and treatment by providing quality investigative facilities in shortest time .
- To enhance the knowledge acquisition process for UG's and PG's and provide a scientific platform to progress with advancing technology.
- To promote continuous learning amongst faculty.



OVERVIEW

- The Department of Pathology imparts theoretical and practical training to the II MBBS and post graduate students. It teaches the students in the performing of basic investigation procedures and the tests.
- Pathology is the backbone of clinical medicine.
- The department has two wings, one in college and the other for hospital services.
- The undergraduate theory classes and practicals are held in the college building.



OBJECTIVES

- To train the undergraduate and postgraduates medical students, dental students as per the RGUHS university guidelines.
- To train DMLT and nursing students as per their curriculum
- To encourage the staff to update the recent concepts and engage in research activities.
- To conduct tutorials & seminars for graduate students.
- To conduct seminars, guest lectures and CME to impart the interdisciplinary nature of pathology.
- The department of pathology has adequate facilities and accommodation in all the lecture halls and is actively involved in teaching, diagnostic, transfusion medicine and research activities.
- We are committed to being a leader in education, training, patient care and research



PROGRAMMES OFFERED

- MBBS
- M.D (Pathology)
- B.D.S.
- NURSING
- D.M.L.T

Program-wise Student Teacher Ratio

- UG program-1:30,(Teachers-07,Students-213)
- PG Program -1:2 ,(Teachers – 07,Students-13)



HEAD OF DEPARTMENT





FACULTY

- It has qualified ,highly efficient, experienced and dedicated staff as per norm of MCI
- Professors-6
- Associate professor-1
- Assistant professors -3-
- Blood bank officer-1
- Tutors-13
- Technicians-23(including blood bank)



Faculty profile - adequacy and competency of faculty

<i>Name</i>	<i>Sex</i>	<i>Designation</i>	<i>Qualification</i>	<i>Approved Guide Y/N</i>	<i>STATE</i>	<i>PT/FT</i>	<i>PhD/</i>
Dr.T. Rajaram	Male	Professor & HOD	M.D Pathology	Yes	Karnataka	FT	Nil
Dr. H. Rangappa	Male	Professor & Dean	M.D Pathology	Yes	Karnataka	FT	Nil
Dr. Usha Ramchandra	Female	Professor & Principal	M.D Pathology	Yes	Karnataka	FT	Nil
Dr. Sharmila.S.P	Female	Professor	M.D Pathology	Yes	Karnataka	FT	Nil
Dr. Mahanthachar.V	Male	Professor	M.D Pathology	Yes	Karnataka	FT	Nil
Dr. Jyothi A Raj	Female	Professor	M.D Pathology	No	Karnataka	FT	Nil
Dr. Sushma.T.A	Female	Assoc. Prof	M.D Pathology	No	Karnataka	FT	Nil
Dr. K.Shashikala	Female	Asst. Prof	M.D Pathology	No	Karnataka	FT	Nil
Dr. S.Shwetha Jayker	Female	Asst. Prof	M.D Pathology	No	Karnataka	FT	Nil
Dr. Latha.V	Female	Blood Bank Officer	DCP Pathology	No	Karnataka	FT	Nil



FACULTY



FACULTY





<i>Name</i>	<i>Sex</i>	<i>Designation</i>	<i>Qualification</i>	<i>Teaching experience</i>
Dr. Nikitha	Female	Tutor	M.B.B.S	2yrs 5 months
Dr. H. Mitika	Female	Tutor	M.B.B.S	2yrs 5 months
Dr. Ankur Gupta	Male	Tutor	M.B.B.S	1yrs
Dr. Paul Francis MF	Male	Tutor	M.B.B.S	1yrs
Dr. Dawal Prajapati	Male	Tutor	M.B.B.S	1yrs
Dr. Amith Baru	Male	Tutor	M.B.B.S	1yrs
Dr. Jeena Jones	Female	Tutor	M.B.B.S	1yrs
Dr. Reshma	Female	Tutor	M.B.B.S	2yrs
Dr. Padmavathi	Female	Tutor	M.B.B.S	6 months
Dr. Radhika	Female	Tutor	M.B.B.S	6 months
Dr. Kanu Priya	Female	Tutor	M.B.B.S	6 months
Dr. Nithun Reddy	Male	Tutor	M.B.B.S	6 months
Dr. Ramya	Female	Tutor	M.B.B.S	6 months

TUTORS





Faculty serving in National committees/ International committees /Editorial Boards / any other

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of IMSA (International Medical Sciences Academy)
- Member of KCIAPM, Bangalore
- Member of Academic Council of Rajiv Gandhi University of Health Sciences



Faculty serving in National committees/ International committees /Editorial Boards / any other

Dr.T. Rajaram

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of Academy of Pathology, Bangalore

Dr. H. Rangappa

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore

Dr. Usha Ramchandra

- Member of Academic Council of Rajiv Gandhi University of Health Sciences
- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of IMSA (International Medical Sciences Academy)



Dr. Sharmila.P.S

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of IMSA (International Medical Sciences Academy)
- Member of KCIAPM, Bangalore

Dr. Mahanthachar

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of Academy of Pathology, Bangalore
- Member of KCIAPM, Bangalore

Dr. Jyothi A Raj

- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of KCIAPM, Bangalore
- Member of IMSA (International Medical Sciences Academy)



Dr. Sushma.T.A

- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of KCIAPM, Bangalore

Dr. K.Shashikala

- Member of IAPM (Indian Association of Pathologists & Microbiologists)
- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore

Dr. S.Shwetha Jayker

- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of KCIAPM, Bangalore

Dr. Latha.V

- Member of IMA (Indian Medical Association)
- Member of Academy of Pathology, Bangalore
- Member of KCIAPM, Bangalore



NON TEACHING STAFF

- **Technicians**

- Sathish.N.T
- Paramesh.T
- Sathish.S.H
- Sandana Mary
- Vijayalakshmi.J
- Jyothilakshmi.N
- G.V.Paramesh
- Bhakyaraj
- Vani Bai
- Kamala.L.
- Jomy John
- Manasa
- Sunitha
- Shivram
- Santosh
- Vikas
- Husna Banu
- Mahadevamma

- **Store keepers**

Vijay kumar B N

- **Steno Typist**

Kamala

Raju

- **Record Clerk**

Vijay

- **Attenders**

Mohseen Taj

Jayamma

AnjanKumar



NON TEACHING STAFF





DEPARTMENT INFRASTRUCTURE





OFFICE ACCOMMODATION

Room	Sq.mtr.	NO.
Departmental office	12	1
HOD	18	1
Professor	18	4
Associate Professor/Reader	15	1
Assistant Professor/Lecturer	15	2
Tutors	15	1



Facility	No.	Size (Sqft)	Seating Capacity
Seminar Room cum library	01	706	45
Lecture halls	01	980	150
Class rooms with ICT facility and 'smart' class rooms (Demo Rooms)	03	740	70
Students' laboratories	02	4560	60
Research laboratories	01	700	
Audiovisual Aids	OHP, LCD projector, Trinocular and Pentahead microscopes for demonstration		



Department Office room





Space details

- Practical hall college -375+375sqms
- Demonstration Rooms- 2X90 sqms
- Dept. Library -50sqms
- Research Lab-65sqms
- Museum-150 sqms
- Preparation Room-13 sqms
- Hospital Clinical Laboratory -300 sqms
- Faculty Rooms -200sqmeter.
- Office-25 sqms
- Store-12 sqms

LECTURE HALL





Seminar Hall





Practical hall



PRACTICAL HALL





DEMONSTRATION ROOM





Slide Discussion with Penta Head microscope





Trinocular Microscope





DEPARTMENTAL MUSEUM

Total al number of Specimens	780
Number of -catalogues of specimens-systemwise	15



DEPARTMENTAL MUSEUM





Museum Specimens

Space	1778 sqft
Total number of Specimens	780
Number of Catalogues of Specimens- System wise	15
Mounted	404
Wet	296
Donated to other departments	70
Number of Microscopes in Museum	06



NUMBER OF SPECIMENS – SYSTEM WISE

Sl.No	SYSTEM	No. of Specimens
1.	Female Genital System	78
2.	Gastro Intestinal System	61
3.	Feto-placental Anomalies	30
4.	Lympho Reticular System	24
5.	Endocrines	23
6.	Breast Pathology	20
7.	Dermatopathology and soft tissue	24
8.	Urinary System	19



9.	Hepato Biliary System	17
10.	Head and Neck Pathology	14
11.	Male Genital System	15
12.	Cardio Vascular System	07
13.	Musculo Skeletal System	09
14.	Nervous System and Ocular Pathology	03
15.	Respiratory System	02



DEPARTMENTAL MUSEUM





LIBRARY- THE Hub of Knowledge





DEPARTMENTAL LIBRARY

Size of the Library - 706 sqft

Pathology & allied books – 168

Department library has books for the use of staff & post graduate students.



CENTRAL LIBRARY

Total number of books - 12849

Total number of Pathology books - 622

Total number of Titles - 176

Total number of Indian Journals - 67

Total number of Indian Journals of Pathology - 04

Total number of Foreign Journals - 63

Total number of Foreign Journals of Pathology - 02

Total number of E-journals related to Pathology- 08

Access through HELINET facility is available.

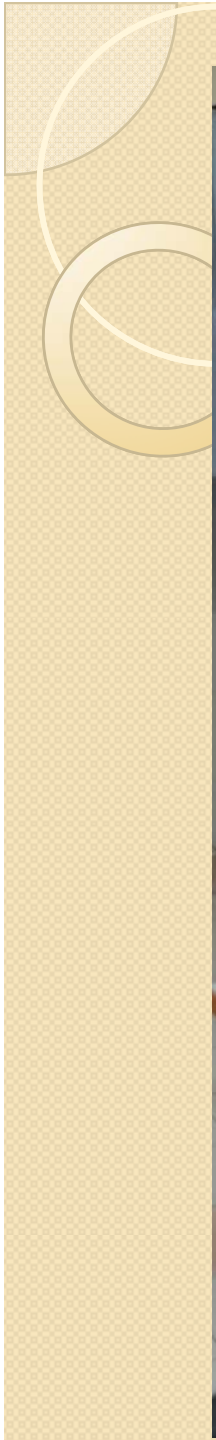


NATIONAL & INTERNATIONAL JOURNALS

Sl.No	National / International	Name of the Journal	Issues per year
1	International	Acta Cytologica	6
2	International	Archives of Pathology and Laboratory Medicine	12
3	National	Indian Journal of Cancer	4
4	National	Asian Journal of Transfusion Science	2
5	National	Indian Journal of Cytology	4
6	National	Indian Journal of Hematology and Blood Transfusion	4

Departmental Library







Departmental Research Laboratory

- Trinocular Microscope
- Electrophoresis Equipment
- Immunohistochemistry Equipment

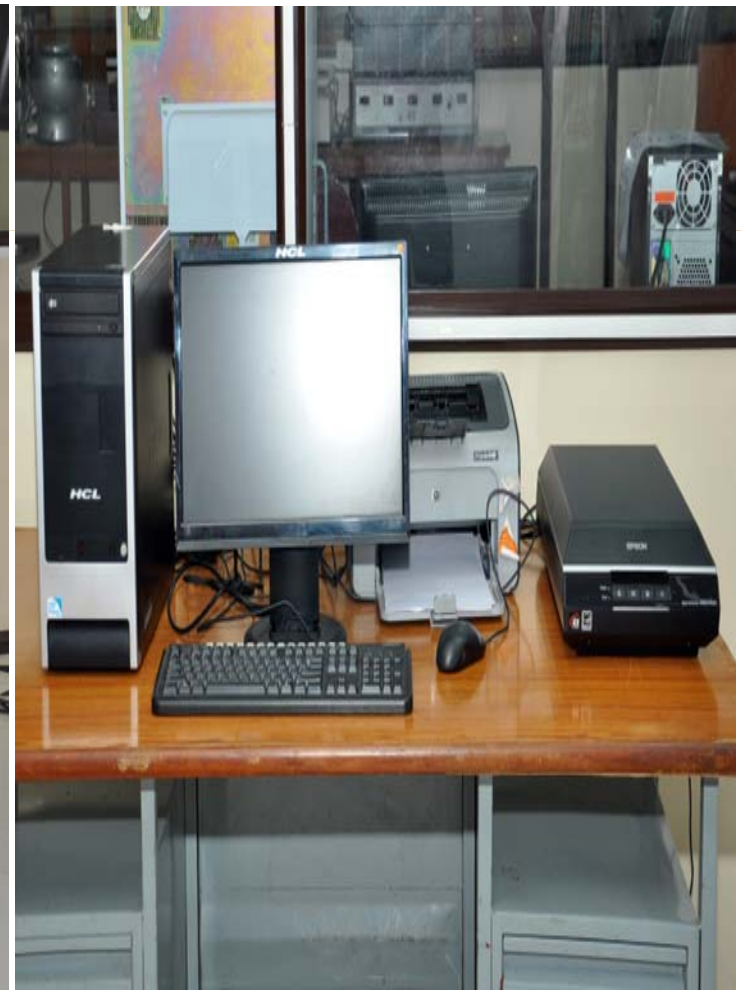


SERUM/HB ELECTROPHORESIS EQUIPMENT





IMMUNOHISTOCHEMISTRY EQUIPMENT





DEPARTMENTAL RESEARCH LABORATORY

Sl. No.	Name of the Equipment	Number Present
1.	Trinocular Microscope	01 Nos
2.	Electrophoresis Equipment	01 Nos
3.	Immunohistochemistry Equipment	01 Nos



LIST SERVICES OFFERED BY THE DEPARTMENT OF PATHOLOGY

1. Histopathology:

- a. Biopsy : Incisional
Excisional
- a. Frozen Section

2. Cytology:

- i. FNAC: Palpable masses
Non-palpable masses, under image guidance
- ii. Pap Smear
- iii. Body Fluid Cytology
- iv. Imprint cytology

3. Clinical Pathology & Haematology:

- a. Haematology
 - CBC, Hb, TC, DC, ESR, Reticulocyte count, Platelet count.
 - Peripheral smear,
 - Bone marrow and biopsy
 - PT, APTT
 - b. Urine analysis: Routine, Bile Salts, Bile Pigments, Ketone bodies
 - c. Semen analysis
 - d. Stool for Occult blood
4. **Blood bank:** whole blood and components- PRBC, platelets, FFP,
Cryoprecipitate



Hospital laboratory





HAEMATOLOGY SECTION

- **Sysmex automated Hematology analyser**
- **Agappe – 3,000plus auto hematology analyser**
- **Nihon- kohden auto hematology analyser and other accessories**
- **Accustar (accu esr 30 ts) automated ESR analyser**
- **Act – 4 Accustar coagulometer**



SYSMEX AUTO LOAD HAEMATOLOGY ANALYZER





Nihon- kohden hematology analyzer



Agappe hematology analyzer





Automated ESR machine-Roller 20





HEMATOLOGY

1.	Sysmex automated Hematology analyser with printer	1
2.	Agappe – 3,000plus auto hematology analyser	1
3.	Nihon- kohden with h-p laser printer and other accessories	1
4.	Ups - 3kva with external batteries	2
5.	Computer with monitor – Samsung & Acer	2
6.	Laser printer – hp laser jet 1020 & 1007	2
7.	Incubator	1
8.	Centrifuge (remi)	1
9.	Accustar (accu esr 30 ts) automated esr analyser	1
10.	Act – 4 accustar coagulometer	1
11.	Sahli's hemoglobinometer	2
12.	Neubauer's chamber	1
13.	Wintrobe tube (glass)	2
14.	Wintrobe stand (steel)	1
15.	ESR disposable tube stand	1
16.	Micropipette- 5 – 50 microlitre	
17.	100 – 1000 microlitre	



18. Borosil glass 1ml pipette	1
19. Hemoglobin tube	1
20. Wbc pipette	1
21. Rbc pipette	1
22. Blood cell counter with keys	2
23. SD urometer 120	1
24. Multi thermometer with probe for refrigerator	1
25. Microscopes (monocular)	
<hr/>	
27 Whirlpool refrigerator – 165 litre capacity	1
28 Stabilizer for refrigerator	1



HISTOPATHOLOGY

- **Leica semiautomated microtome** 1
- **Leica automated tissue processor** 1

- **Yorco rotary microtome – Automated** 2
- **Yorco rotary microtome – Manual** 2
- **Automated tissue processor (Yorco)** 1
- **Cryostat microtome automated(Yorco)** 1



Modern new equipments

HISTOPATHOLOGY SECTION

Automated Tissue Processor (Leica)



Automated Microtome (Leica)





Automated microtome (YORCO)





CRYOSTAT (YORCO)





HISTOPATHOLOGY

NAME OF EQUIPMENT	NO.
1. Leica semiautomated microtome	1
1. Leica automated tissue processor	1
1. Yorco rotary microtome - automated	2
1. 2. Yorco rotary microtome – manual	1
2. tissue capsules (steel)	50
1. Aluminium slide carriers – large size	5
small size	1
1. a) Micro slide cabinet (5,000 capacity)	1
b) Micro Slide cabinet (20,000 capacity)	2
1. Paraffin block cabinet (20,000)	2
1. Automated tissue processor (yorco)	1
1. Cryostat microtome automated(yorco)	1
1. Monocular microscope (issued from college)	3



CYTOLOGY

CENTRIFUGE



CYTOSPIN





CYTOLOGY

EQUIPMENT	NO.
• MICRO SLIDE CABINET (20000 CAPACITY)	1
•	
• 2. MICROSLIDE CABINET (5000 CAPACITY)	1
•	
• 3. FNAC GUN	1
•	
• 4. TEST TUBE RACKS (PLASTIC)	1
•	
• COPLIN JARS	17
•	
• FORCEPS	1
•	
• HEMOCYTOMETER	1
•	
• SYRINGE & NEDDLE DESTROYER	1
•	
• HOT AIR OVEN	1
•	
6. CYTOCENTRIFUGE	1



GROSSING ROOM

1. SCISSORS	3
2. MEASURING SCALE	1
3. FORCEPS	2
4. SCALPELS	2
<hr/>	
5. BRAIN CUTTING KNIFE	1
6. SMALL KNIVES	2
7. HAMMER	1
8. BONE CUTTING SAW	1
9. PROBE	
10. WEIGHING SCALE	1



COLLECTION CENTRE

EQUIPMENTS

NO.

1. SYRINGE NEEDLE DESTROYER

3

2. MEASURING SCALE

1

3. PLASTIC TEST TUBE HOLDER

1

REPORTING ROOM

MICROSCOPES

NO.

1. BINOCULAR MICROSCOPES

7

2. TRINOCULAR MICROSCOPE WITH LCD PROJECTOR ATTCHMENT

1

3. TRINOCULAR MICROSCOPE WITH MICROPHOTOGRAPHIC
ATTACHMENT

1

4. PENTAHEAD MICROSCOPE

1



Reporting Room





PENTAHEAD MICROSCOPE





PENTAHEAD MICROSCOPE

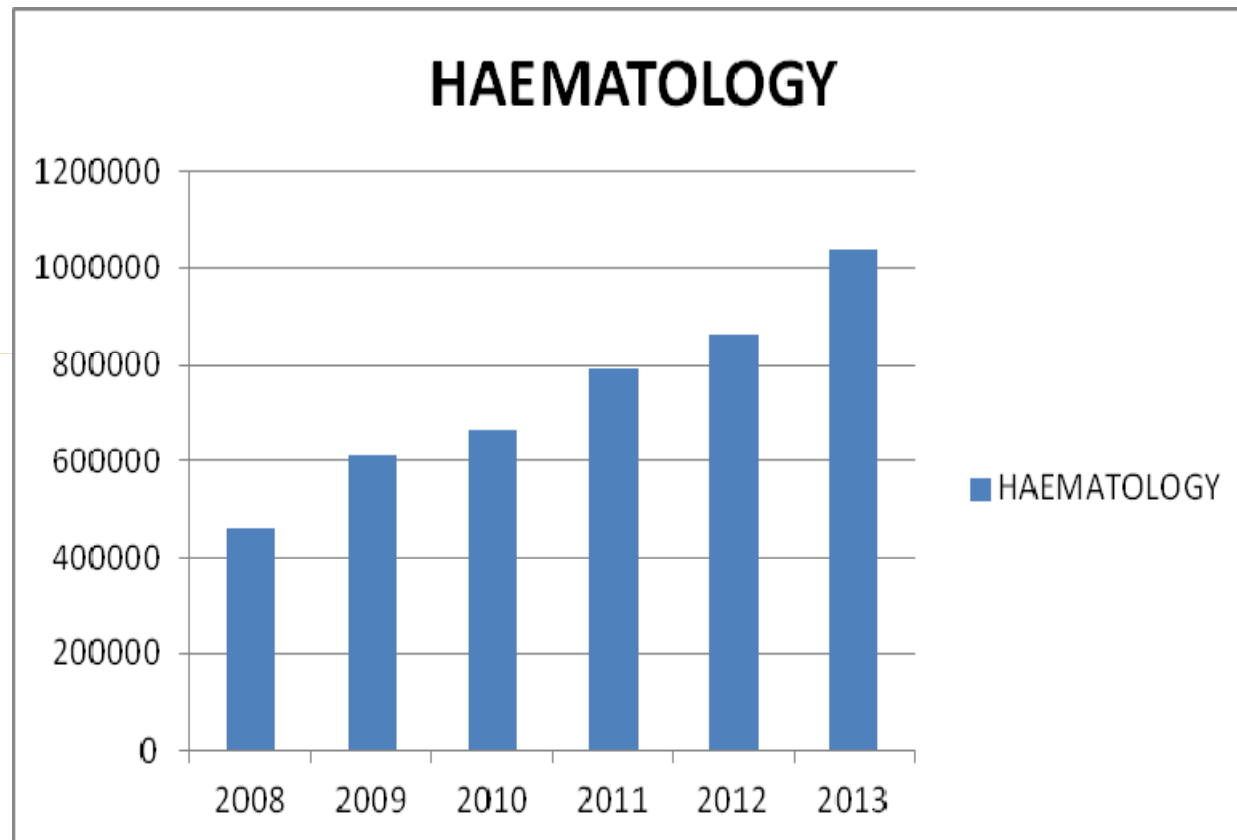


PATHOLOGY LABORATORY STATISTICS 5 YEARS **NO. OF INVESTIGATION**

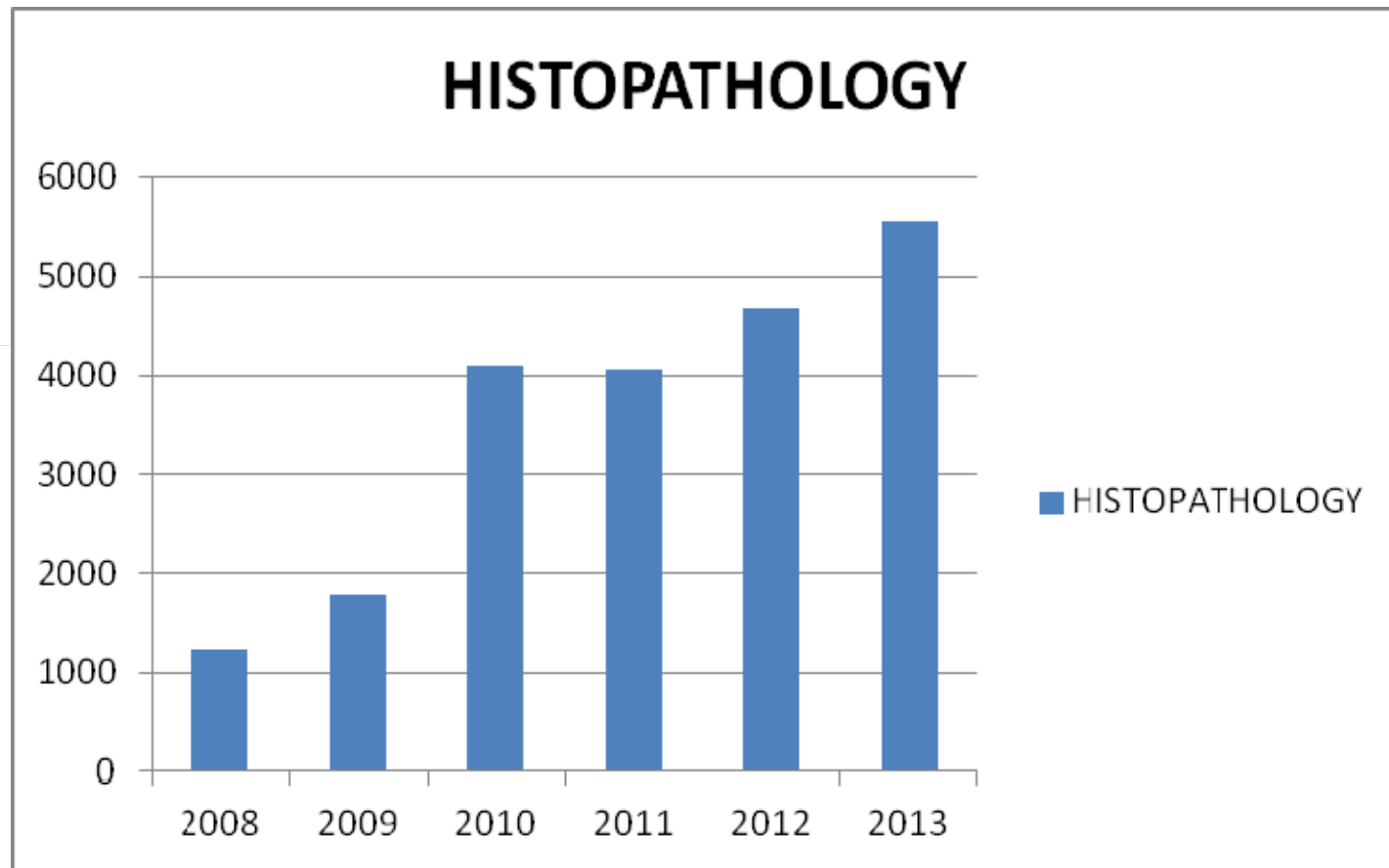


Sl.No.		2008	2009	2010	2011	2012	2013	Total
1	HAEMATOLOGY	457838	611558	666550	791335	863124	1039991	4430396
2	HISTOPATHOLOGY	1229	1768	4098	4053	4686	5550	21384
3	CYTOPATHOLOGY	1397	2712	5088	6083	6199	7429	28908
	<i>TOTAL</i>	460464	616038	675736	801471	874009	1052970	4480688

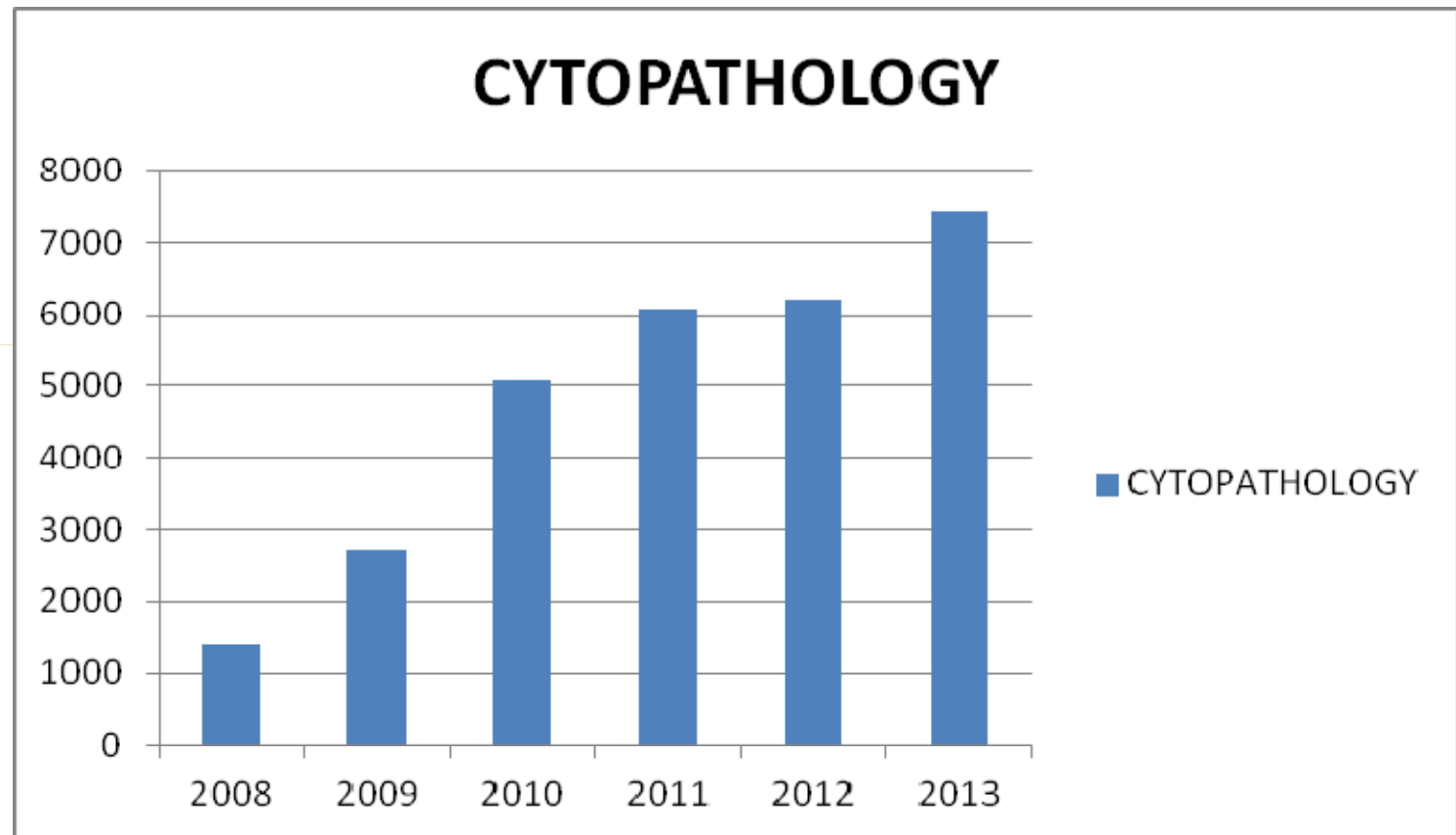
HAEMATOLOGY



HISTOPATHOLOGY



CYTOPATHOLOGY





The R.R.M.C.H Blood Bank was a pioneering step in the direction of advanced and precise medical care, when it was started in 2004.

The Blood Bank officer is Dr. Latha who has established the Blood Bank as per the FDA rules

Our Blood Bank started in the year 2004 with a valid license upto 2014.

We have been licensed to have a full fledged functional Component Preparation .

Our blood bank provides 24 hour services



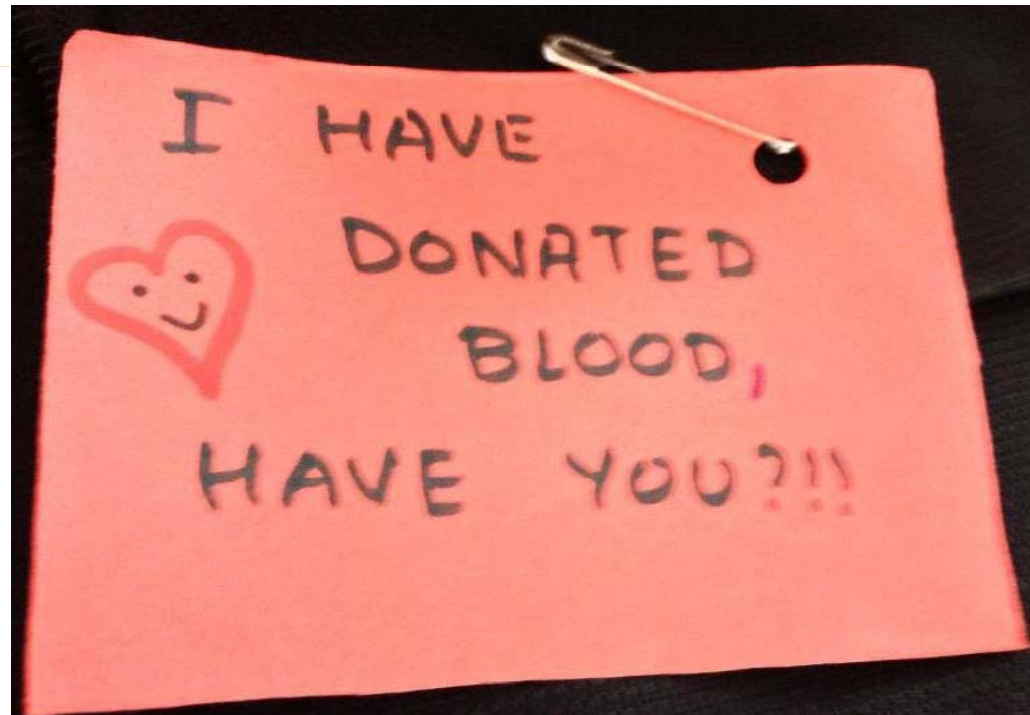
Blood Bank



Blood Donation Is Good



Blood Bank



Kushal Gevaria



Blood Bank-Products available

- Whole Blood
- PRBC
- Platelet concentrate.
- Cryoprecipitate
- FFPs





Blood Bank- Screening tests

- HIV I and II, HbsAg, VDRL, Malaria Ag, HCV,
- Cell and Serum grouping
- Cross Matching,
- Atypical antibody screening
- Direct and Indirect Antiglobulin test
- Transfusion Reaction workup

Blood Bank Staff



Blood donation camp



Blood and Component storage



**Component
separator**



**Blood Storage
Cabinet**



Platelet incubator & agitator



Plasma cell separator

Plasma freezer (-40 c)



Plasma freezer (-80 c)



Cryo bath



Elisa Reader & Washer





Products available:

- Whole blood,
- PRBC,
- Platelet concentrate,
- cryoprecipitate
- FFPs.

Screening tests:

- HIV I and II
- HbsAg,
- VDRL, for
- Malaria Ag
- HCV
- Cell and Serum grouping
- Cross Matching
- Atypical antibody screening
- Direct and Indirect Antiglobulin test
- Transfusion Reaction workups are being done on a regular basis



LIST OF STAFF IN BLOOD BANK

Sl.No	NAME	DESIGNATION
1	Dr. Latha.V	Blood Bank Officer
2	Dr. Jyothi.A.Raj	Blood Bank Officer
3		
4	Mr. Kumar.S	Technical Supervisor
5	Mr. Shivakumar.N	Technologist
6	Ms. Manjula.S	Technologist
7	Mr. Dilip Kumar.L	Technologist
8	Mr. Ashok Kumar.A	Technologist
9	Ms. Renukamma	Reg.Staff Nurse
10	Ms. Shwetha.H	Reg. Staff Nurse



LIST OF BLOOD BANK EQUIPMENTS

Sl.No	Manufactured	Catlogue No	Sl.No	Quantity
1	1. Terumo Penpol Terumo Penpol	2. 1. D601 D601	2. 1. 12061154 12061156	2 No
3	Remi Equipments Pvt Ltd	1.BR 280 SR 1/40 2.BR-70SR 11/10 with stabilizer	1. BDI-3087 BDI-3086 3. BDI-1669	3 No
4	Remi Equipments Pvt Ltd	PDV 90D, 11/10 TSBO2, 5/10	BDI-1684 S) VS 05	1 No
5	Remi Equipments Pvt Ltd	RPFV-130, 11/10 S) VS 02	BDI - 1670 SB 2248	1 No
7	Remi Equipments Pvt Ltd	P1-105 VS 03, 11/10	RIS-541 SBI1623	1 No
8	Remi Equipments Pvt Ltd	CB-704, 12/10 VS-03	1HC-1609 SB-1621	1 No
9	Remi Equipments Pvt Ltd	4R4414	1209177	1 No
10	Remi Equipments Pvt Ltd	KBM 70 plus 12/10 VS-06	VCCE-2912 TSB-02	1 No
11	Alpha Linear			1 No
12	AXPERT		10g-5kg	1 No
13	Tulip Group	451114015FSE		1 No
14	Tulip group	591118011E3AZ		1 No
15				1 No
16	Lab Line	PCB No 75/1206	809	1 No
17	1. Adelta Optec: Binocular 2. Olympus (Ch20i):Binocular			2 No
18	The Oriental	Md-No-OB/5		1No
19	1. Electrolux Videocon	2. Md.No.VAP 243/2	180liters 235 liters	2 No
20	Remi Equipments	RS 12E 9/03	IXCM 1428	1 No
21	Techno Scientific Product			1 No



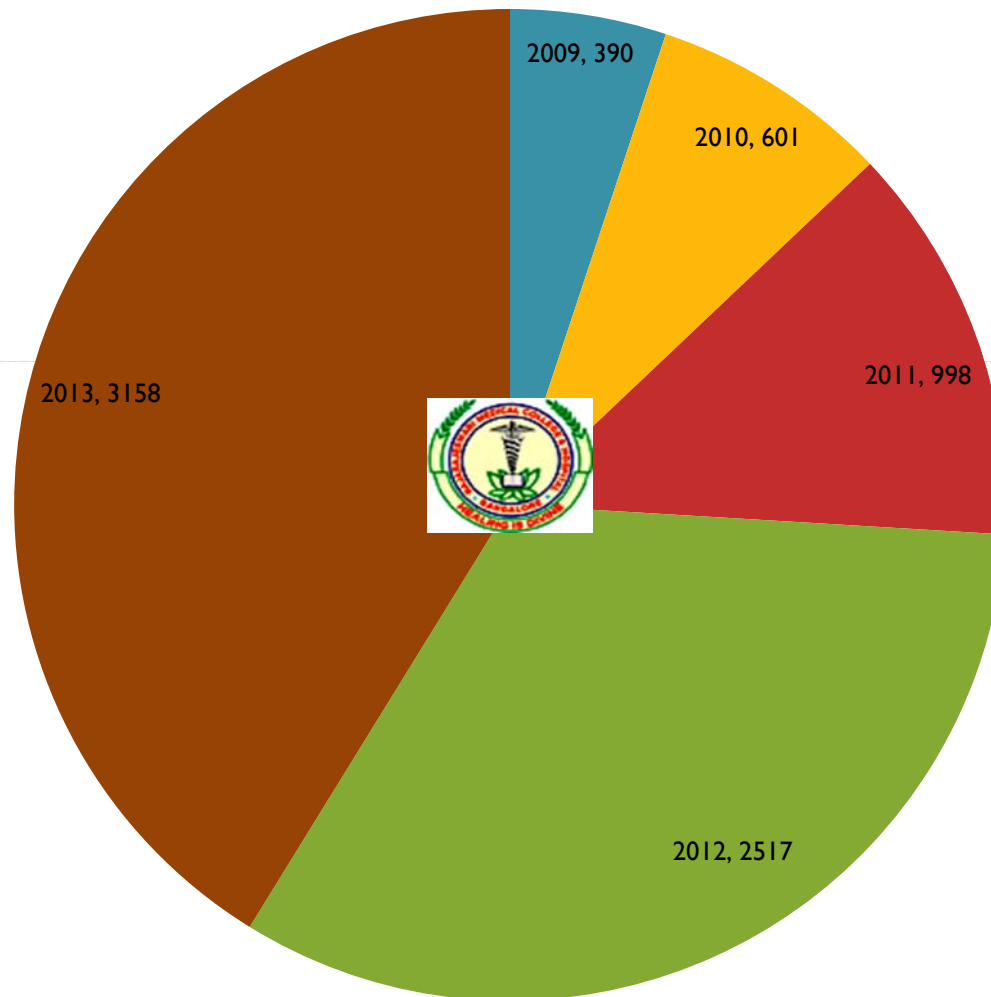
Sl.No	List of Instruments	Manufactured	Catlogue No	Sl.No	Quantity
22	Incubator with digital thermo control	Techno sceintific product			1 No
23	Autoclave	Single drum			1 No
24	Needle destroyer	DESTRO Confident dental Equip Ltd			1 No
25	BP apparatus (mercury type)	1. Diamond-2 Life line -1 Elkometer-1	2. 3. 160 Oct-10 Oct 10 120 206952	00587 49419	4 No
26	Weighing device for blood bags	Docble Braun			1 No
27	Donor Weighing scale	Tanita	HA622	871222	1 No
28	Oxygen Cylinder	B type			1 No
29	Photocolorimeter digital (Hb)	Labtronic	Mod No-12		1 No
30	Air conditioner	1. Panasonic-3 Intello air-1 general-1 Buss -1 1	2. 3. I 4. LG 5. Sanyo- 1		7 No
31	Sahlis Hb colorimeter	Mariefeld			3 No
32	Stethoscope	1.Poiner 2.Life line	Silver CE		2 No
33	Pipettes various size	100-1000µl 50µl 1000µl	5- 50µl	1 1 2 1	5 No
34	Hand lense				1 No
35	Insulated container		transporting blood		1 No
36	Timer (Stop watch)	KADIO	1.KD 2015 6128 2. KD		2 No
37	Thermometer				
1. Clinical-1 3. Room temp-1 Thermo-3	2. Digital-1 4. Dial	1. Hvcer-1 2. BIOCRAFT-2	6 No		
38	Rh veiw box				1 No
39	Centrifuge	Remi Equipments Pvt Ltd		Remi R8C-1 (16buckets) Mico(4 Buckets) Remi(8Buckets)	3 No
40	UPS	On line - 1 Wep-2	3 KVA 600VAECO		3 No
41	Printer	HP laserjet	P1007		1 No
42	Computer Keyboard CPU	Zenith Pleomax/Samsung corporation zenith			1 No
43	Electric Stove	HRC, Hakso Electro control			1 No



Blood Bank Statistics

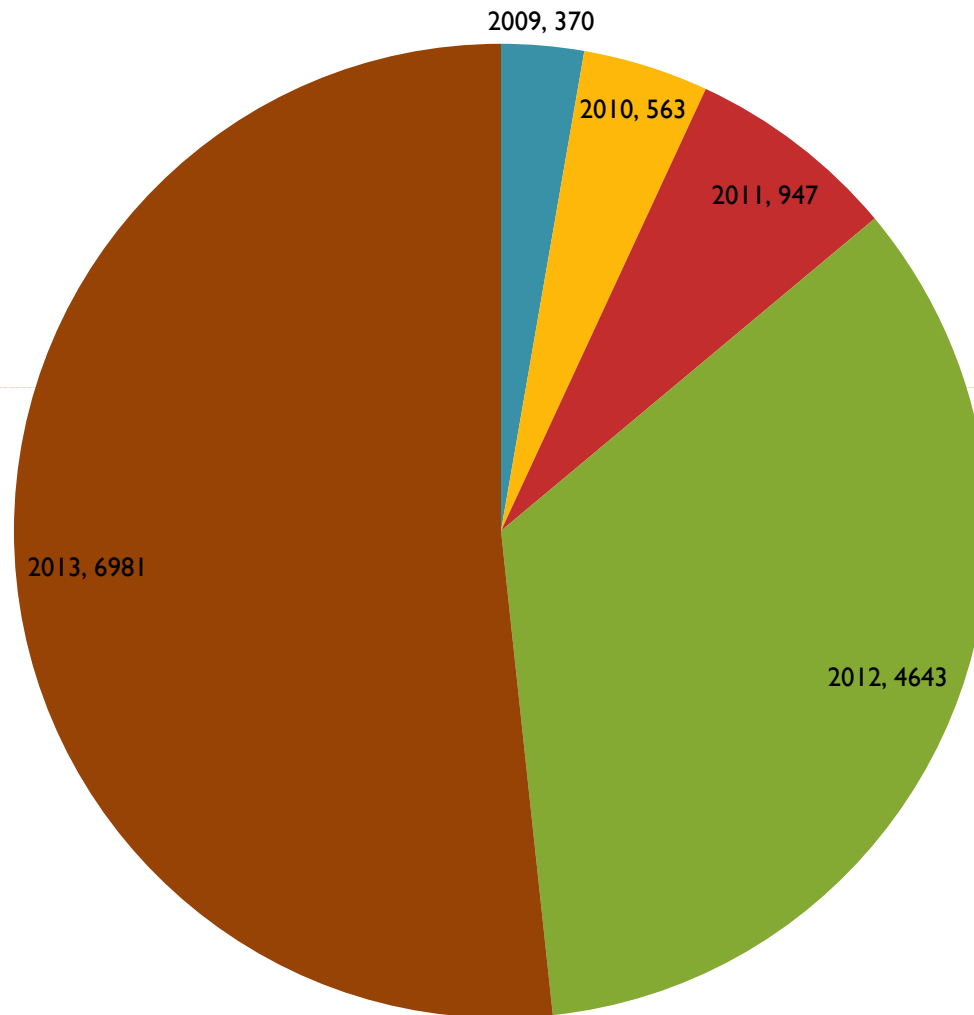


Collection From 2009 to 2013(Nov)



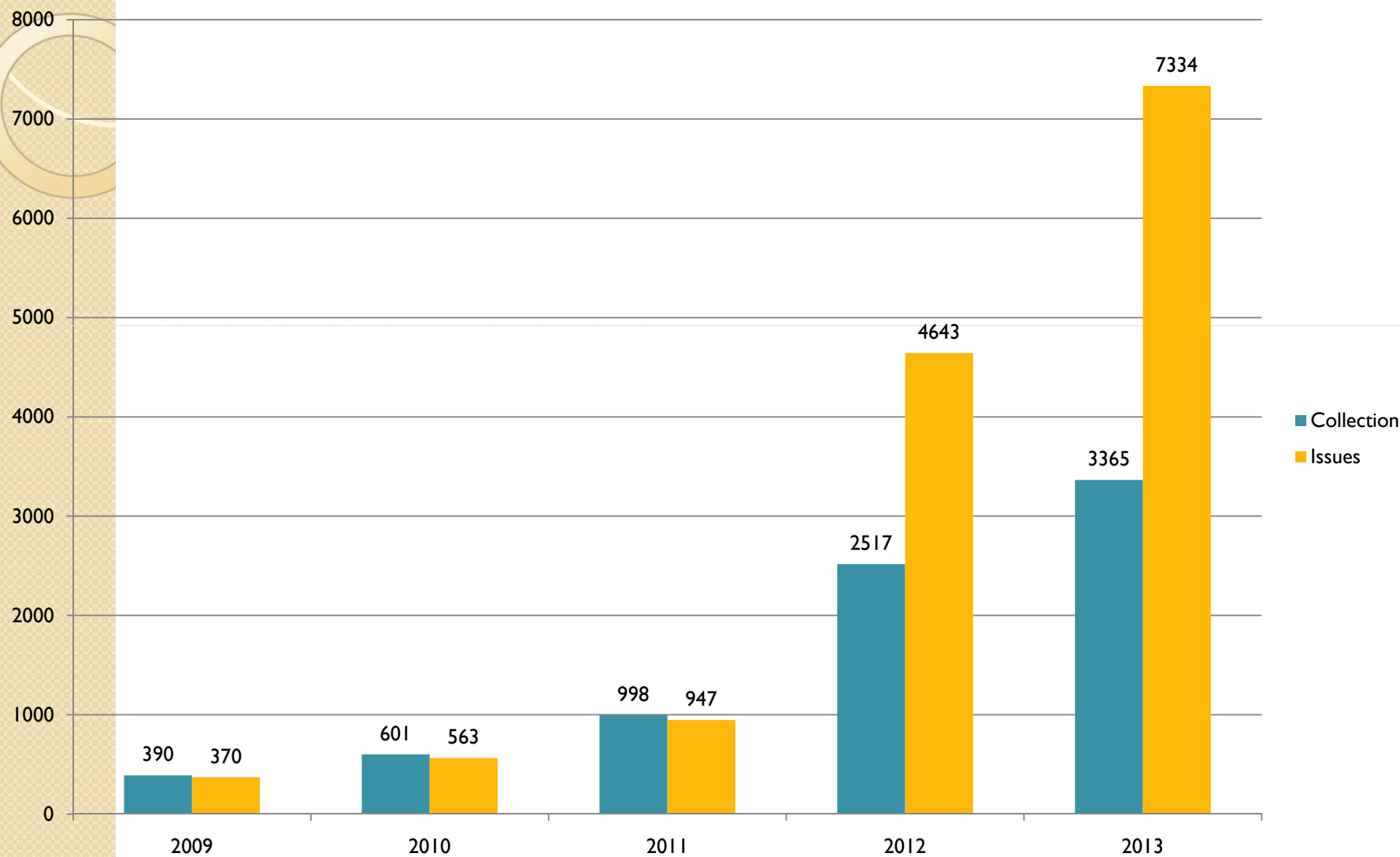


Issues From 2009 to 2013(Nov)



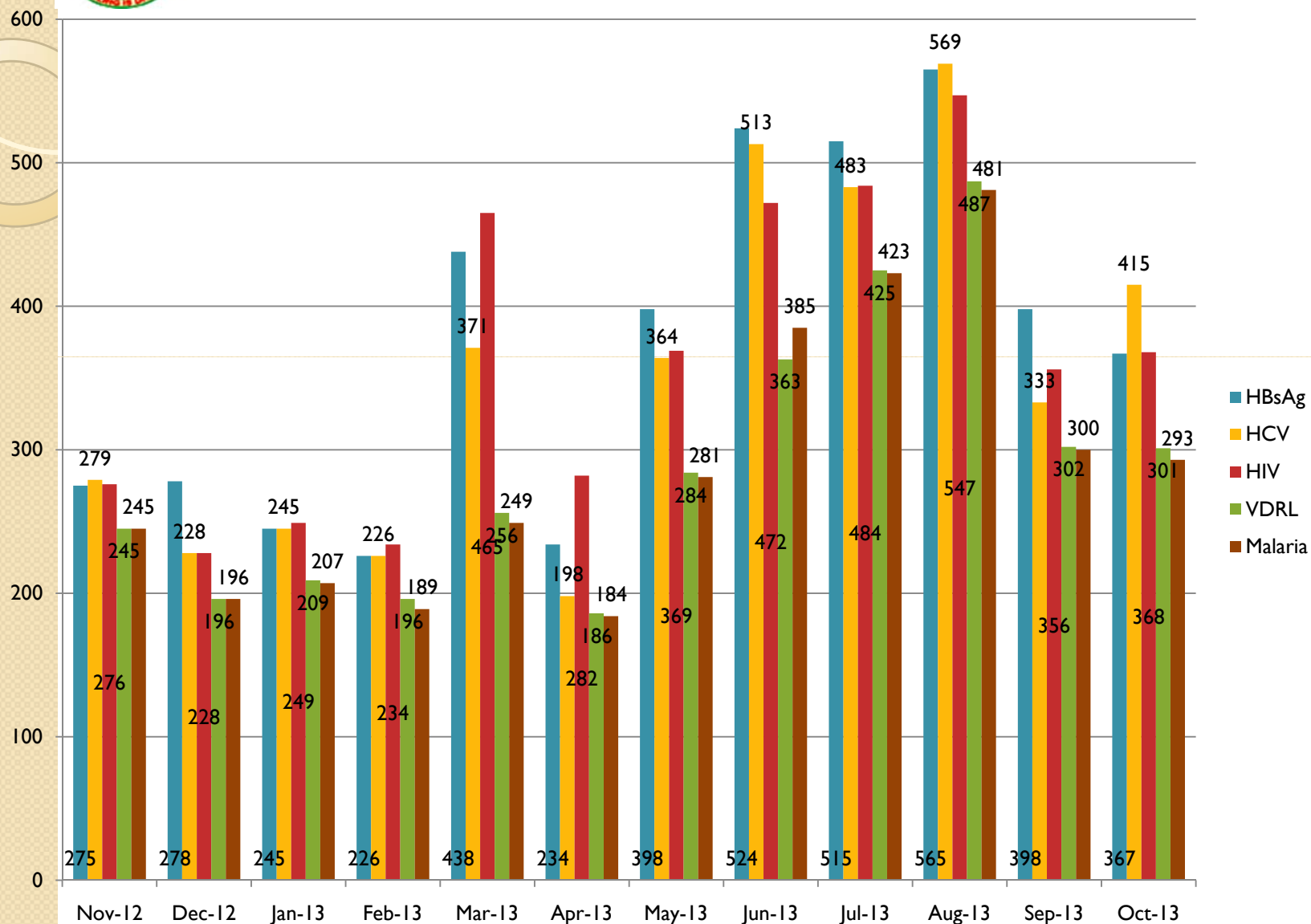


Statistics From 2009 to 2013 (Oct)

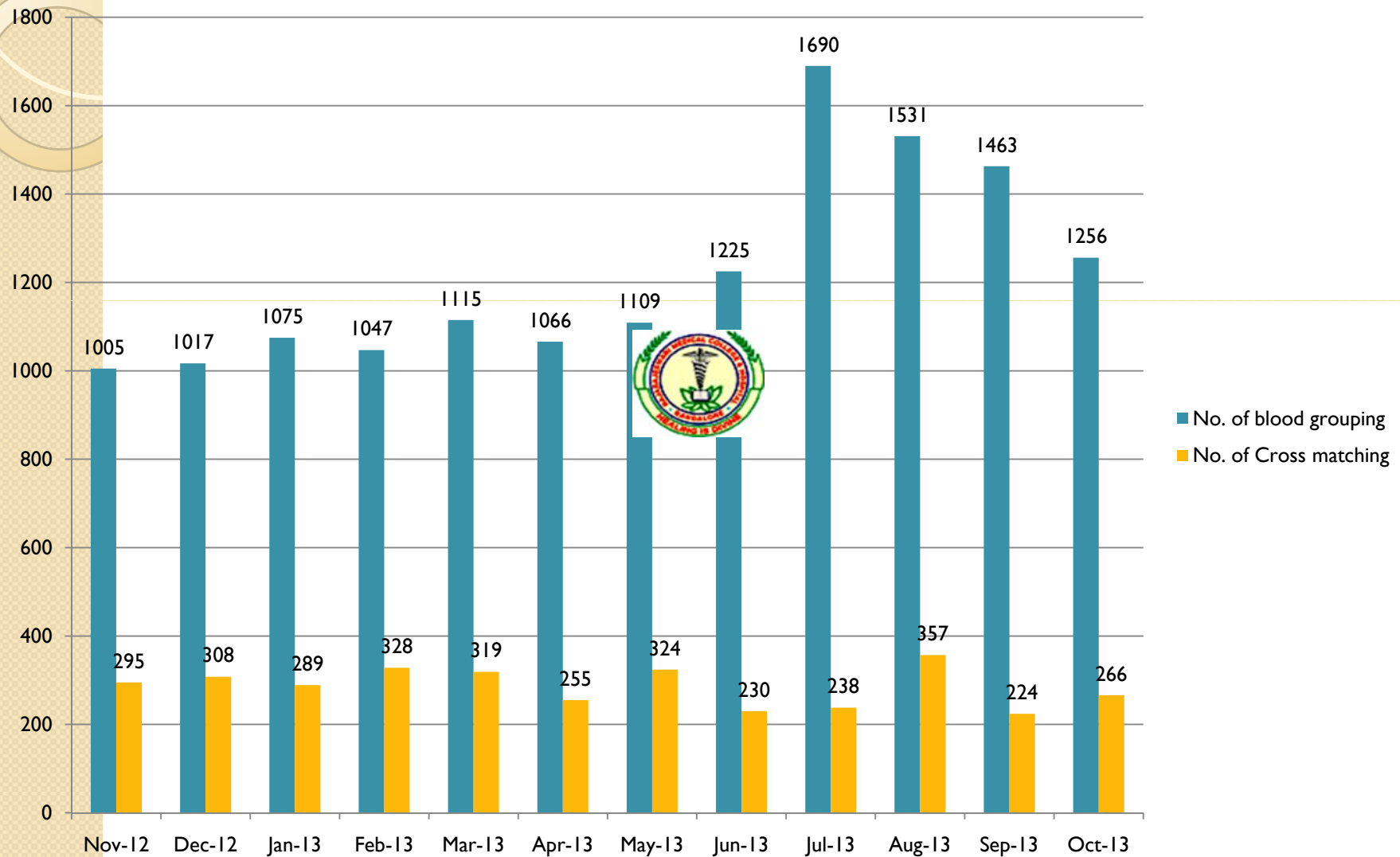




Statistics of Screening Tests Nov - 2012 to Oct - 2013

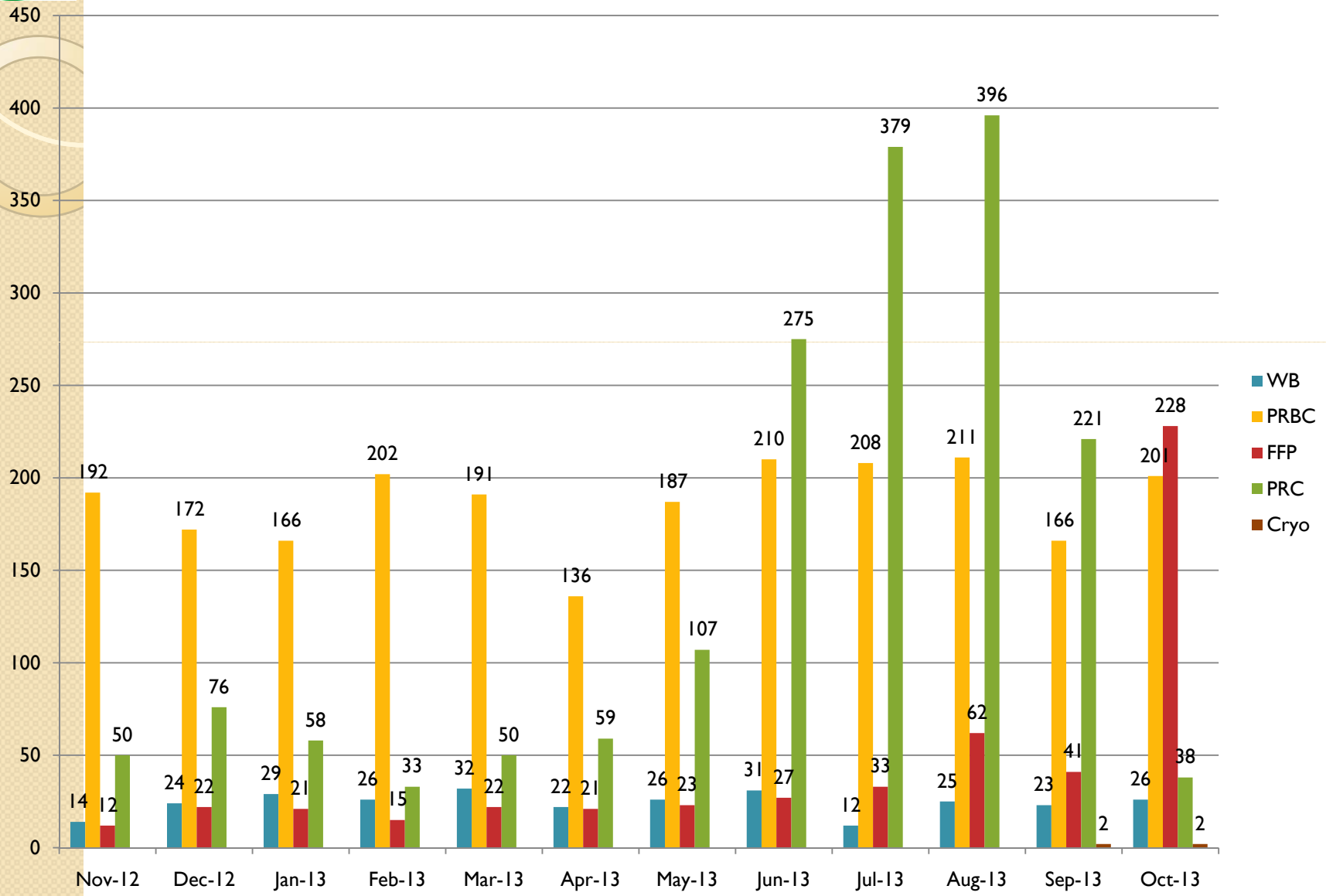


Statistics Of Blood grouping & Cross matching(Nov-12 to Oct-13)





Statistics of Issue of Blood Components(Nov 12 to Oct 13)





TEACHING LEARNING METHODS



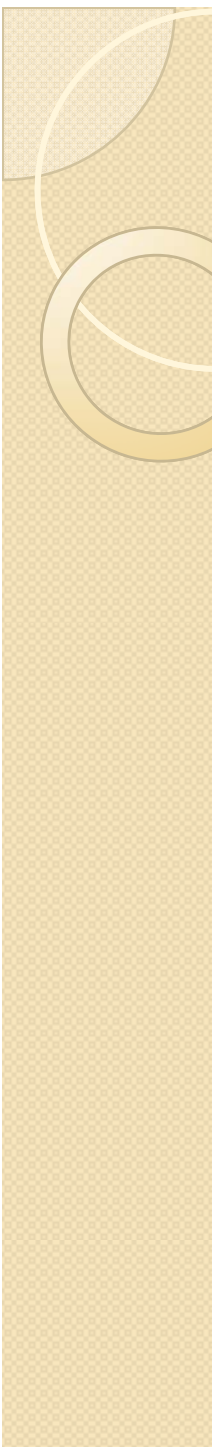
CURRICULUM/SYLLABUS

- The curriculum is as per the RGUHS directive and meets the requirements of Medical Council of India for II MBBS.
- Apart from Lectures, Practicals & Demonstrations in the subject by the faculty, the undergraduate programmes include tutorials and seminars involving active student participation.
- The theory classes take up 120 hrs. for lectures and practical classes take 144 hrs. for 72 sessions of two hours each.



Teaching Programme Under Graduate

- 1 year 6 months - III, IV, V Term
- Lectures in well equipped lecture hall with LCD facility
- Feedback from students
- Revision lectures, Tutorials
- Small batches for practicals

- 
- Well established museum with illustrated photographs and microphotographs and catalogues
 - Student seminars
 - Integrated teaching
 - Problem based learning
 - Student research projects
-



Teaching Programme Post Graduate

- MD : 6 Semesters, 3 yrs.
- Subject wise rotation
Hematology, Histopathology ,
FNAC, bloodbanking, Autopsy, Clinical
Pathology
- Reporting of FNAC , Haematology and
Histopathology slides
- UG practical briefing
- Assisting the staff in research work
- Grossing of tissues



TRAINING PROGRAMME FOR POST-GRADUATES(contd)

- Seminars and Journal clubs are conducted once a week
 - practical work will be in allotted section.
-
- PGs will participate in CPCs, Clinical Meetings, Morbidity & Mortality Meetings & CMEs Which are Centrally organized.
 - Biopsy Review and gross discussion
 - Review of Dissertation every six months
 - Six monthly Internal Assessment –Theory and Practical



Interdisciplinary programs and departments involved

- PG Students are posted on rotation for 15 days to other departments like Biochemistry, Microbiology, Forensic Medicine.

Courses in collaboration with other universities, industries, foreign institutions

- P.G Students are posted to following institutions on rotation for 15 days duration.
- NIMHANS – National Institute of Mental Health & Neurosciences, Bangalore – For Neuropathology Training.
- Kidwai Memorial Institute of Oncology – Bangalore – For Oncopathology Training



Participation of the department in the courses offered by other departments

- P.G students of following departments are posted to this department on rotation basis for 15 days duration,
-
- Physiology
 - Forensic Medicine
 - Microbiology



List the teaching methods adopted by the faculty for different programmes including clinical teaching.

- PPT – Power Point Presentation
- OHP
- Black Board
- Museum
- Charts
- Practicals.

Periodic Internal Assessment

- Slide seminars
- Case discussions
- Clinico-pathological correlation
- Internal assesement exams every 6months
- Subject seminars
- Journal club



Dept. of Pathology
THEORY
Teaching Schedule for MBBS Phase-II(Regular Batch) 90 Students
2013-2014 (III Term to V Term)

Venue	Topic	Teacher	No of Hours
Lecturer Hall-IV	Introduction to Pathology/ Neoplasia/ Renal system	Dr. T.Rajaram	1+8+8
-do-	Inflammation, Healing & Repair/ CVS	Dr. Sharmila.S.P	8+8
-do-	Cell Injury/ Cellular adaptations/ Genetics/ Muscular Skeletal system/MGT	Dr. V.Mahanthachar	6+4+4+4
-do-	Circulatory disturbances/GIT/Hepatobiliary System	Dr.Jyothi A Raj	6+8+4
-do-	Immunopathology/ Endocrines/ Beeding disorders	Dr. Sushma.T.A	6+4+4
-do-	WBC disorders/ Female reproductive system/ Breast	Dr. Shashikala.K	4+6+4
-do-	RBC disorders/Respiratory system/ Lymphoreticular system	Dr. Shwetha.S.J	8+6+2
-do-	Blood banking techniques	Dr. Latha.V	2
-do-	FNAC & CSF analysis	Dr. Mithka & Dr. Nikitha	1+1
-do-	Ocular pathology & Bone Marrow	Dr. Dhawal P & Ankur Gupta	1+1
-do-	Semen Analysis & Dermatopathology	Dr. Jeena John & Dr. Paul M.F	1+2
-do-	CNS & Exfoliative cytology & PAP	Dr. Amit & Dr. Reshma A	4



Dept. of Pathology-UG
Practical Time Table for MBBS Phase-II for (Regular Batch)
2013-2014 (III Term) 90 students

Date	Day	Topic	Teacher	Batch
1/10/2013	Tuesday	Sample collection & Anticoagulants	Dr.Shashikala.K Dr.Ankur Gupta	I
9/10/2013	Wednesday	Sample collection & Anticoagulants	Dr.Shashikala.K Dr.Jeena John	II
8/10/2013	Tuesday	Study of Formed elements of blood	Dr.Shashikala.K Dr.Paul.M.F	I
23/10/2013	Wednesday	Study of Formed elements of blood	Dr.Shashikala.K Dr.Amit Bharu	II
15/10/2013	Tuesday	Hemoglobin estimation	Dr.Sushma.T.A Dr.Dhawal.P	I
30/10/2013	Wednesday	Hemoglobin estimation	Dr.Sushma.T.A Dr.Padmavathi	II
22/10/2013	Tuesday	Blood group determination	Dr.Latha.V Dr.Kannupriya	I
6/11/2013	Wednesday	Blood group determination	Dr.Latha.V Dr.Ramya.R	II
29/10/2013	Tuesday	ESR & PCV estimation Reticulocyte count, Blood indices; LE cell	Dr.Latha.V Dr.Reshma.A	I
13/11/2013	Wednesday	ESR & PCV estimation Reticulocyte count, Blood indices; LE cell	Dr.Latha.V Dr.Nithun C	II
5/11/2013	Tuesday	Preparation of Peripheral blood smear & Differential leucocyte count estimate	Dr.Sushma.T.A Dr.Radhika	I
27/11/2013	Wednesday	Preparation of Peripheral blood smear & Differential leucocyte count estimate	Dr.Sushma.T.A Dr.Ankur Gupta	II



Rajarajeswari Medical College & Hospital, Bangalore
Dept. of Pathology
II MBBS V term, 76 students (Regular batch)
PRACTICALS & REVISION

Days	Date	Hours	Topic	Faculty
Monday	3/9/2012	2-4 PM	Hematology charts	Dr.Jyothi A Raj
			Clinical Pathology charts	Dr. Sushma T.A
Friday	7/9/2012	2-4 PM	Hematology charts	Dr.Jyothi A Raj
			Clinical Pathology charts	Dr. Sushma T.A
Monday	10/9/2012	2-4 PM	Cytology charts	Dr. S.P.Sharmila
			Instruments	Dr.T.Rajaram
Friday	14/9/2012	2-4 PM	Cytology charts	Dr. S.P.Sharmila
			Instruments	Dr.T.Rajaram
		Specimen class and Relevant slides		
Monday	17/9/2012	2-4 PM	General Pathology, Bone and Joints	Dr.V.Mahanthachar Dr.Nikita, Dr.Paul
Friday	21/9/2012	2-4 PM	General Pathology, Bone and Joints	Dr.V.Mahanthachar Dr.Nikita, Dr.Paul
Monday	24/9/2012	2-4 PM	Female genital tract, Male genital tract, Breast	Dr.Sharmila.S.P, Dr.Mitika, Dr.Dhawal
Friday	28/9/2012	2-4 PM	Female genital tract, Male genital tract, Breast	Dr.Sharmila.S.P, Dr.Mitika, Dr.Dhawal
Monday	1/10/2012	2-4 PM	GIT and Hepatobiliary system	Dr.Jyothi.A, Dr.Shwetha,Dr.Jeena
Friday	5/10/2012	2-4 PM	GIT and Hepatobiliary system	Dr.Jyothi.A, Dr.Shwetha,Dr.Jeena
Monday	8/10/2012	2-4 PM	CVS and Renal system	Dr.T.Rajaram, Dr.Shashikala,Dr.Ankur
Friday	12/10/2012	2-4 PM	CVS and Renal system	Dr.T.Rajaram, Dr.Shashikala,Dr.Ankur
Friday	19/10/2012	2-4 PM	Lymphoreticular system, Endocrines, Dermato pathology	Dr.V.Mahanthachar, Dr.Shwetha, Dr.Paul
Monday	22/10/2012	2-4 PM	Lymphoreticular system, Endocrines, Dermato pathology	Dr.V.Mahanthachar, Dr.Shwetha, Dr.Paul



Topic	Teacher
Atherosclerosis Monckeberg's sclerosis Myocardial infarction	Dr.Jyothi.A Raj
Lobar Pneumonia Fibroadenoma Breast Carcinoma Breast	Dr.Latha.V
Hashimoto's Thyroiditis Multinodular Goitre Papillary carcinoma	Dr.Shreedhar Murthy
Chronic Gastric Ulcer Carcinoma of Stomach Adenocarcinoma of Intestine Tuberculosis Intestine	Dr.Sushma.T.A
Fatty Liver CVC Liver Cirrhosis of Liver	Dr. Hemamalini.J
Chronic Glomerulonephritis Pyelonephritis Renal Cell Carcinoma Wilm's Tumor	Dr.Naresh Babu
Carcinoma Penis B.P.H Seminoma Testis Transitional Cell Carcinoma	Dr.Jagadeesha.M
Cystoglandular Hyperplasia Secretory Phase- Endometrium Proliferative Phase- Endometrium Leiomyoma	Dr.Latha.V
Hydatidiform Mole Mucinous Cystadenoma Serous Cystadenoma Benign Cystic Teratoma Villous Adenoma	Dr.Shweta
Osteochondroma Osteoclastoma Osteosarcoma BCC	Dr.shashikala



PROBLEM BASED LEARNING

- Sickle cell anemia
 - Multiple myeloma
 - Pleural fluid – Positive for Malignant cells (Adenocarcinoma)
-
- PAP Smear vaginal smear positive for malignant cells (Carcinoma cervix)
 - FNAC Lymph node – Tuberculous Lymphadenitis
 - CSF Cytology –Tuberculous meningitis
 - A case of Carcinoma Pancreas, Liver function tests
 - A case of obstructive jaundice, Liver function tests



ENRICHMENT COURSES

- Role of immunofluorescence in renal diseases.
- Role of immunofluorescence in skin lesions
- Immunophenotyping of lymphoma.
- Immunohistochemistry of breast cancer

University Examination Results II MBBS

2008 Dec	37	22	15	-	-	59%	41%
2009 Jun	39	29	10	-	-	74%	26%
2009 Dec	63	50	13	-	-	79%	21%
2010 Jun	40	17	23	-	-	42%	58%
2010 Dec	78	47	31	-	-	60%	40%
2011 Jun	57	33	24	-	-	57%	43%
2011 Dec	88	51	37	-	-	58%	42%
2012 Jun	61	42	19	-	-	68%	32%
2012 Dec	91	59	32	-	-	65%	35%
2013 Jun	57	37	20	-	-	65%	35%



Slow Performer Students

Remedial Measures and Coaching

1. Making them to attend the tutorials classes.
2. Conducting revision practical.
3. Arranging Parents Teaching Meeting.
4. Monitoring their attendance and compulsory follow up of the student.
5. Giving written home assignment on chapter wise, frequently asked questions.



SUBJECT SEMINAR PG PROGRAMME -2013

Sl.No.	Topics	Names
1.	Cell injury mechanisms and types of cell injury	Dr.MITIKA.S
2.	Hyperplasia, hypertrophy Atrophy Metaplasia	Dr.NIKITA.K
3.	Necrosis & Apoptosis	Dr.MITIKA.S
4.	Intracellular accumulation of pigments, cellular aging	Dr.NIKITA.K
5.	Acute inflammation mechanisms /mediators outcome of inflammation	Dr.MITIKA.S
6.	Chronic Inflammation, Granulomatous inflammation	Dr.NIKITA.K
7.	Wound healing	Dr.MITIKA.S
8.	Granulomatous diseases Part-I Pathogenesis features & diagnosis	Dr.NIKITA.K
9.	Granulomatous diseases Part-II Pathogenesis features & diagnosis	Dr.MITIKA.S
10.	Wound healing /repair /regeneration & healing in special tissues	Dr.NIKITA.K
11.	Normal hemostasis, Bleeding Disorders	Dr.MITIKA.S
12.	Coagulation disorders & DIC	Dr.NIKITA.K
13.	Thrombosis, embolism, infarction	Dr.MITIKA.S
14.	Shock	Dr.NIKITA.K
15.	Genetics- I Mendelian Disorders	Dr.MITIKA.S
16.	Genetics-II Autosomal disorders	Dr.NIKITA.K
17.	Genetics-III Sex linked disorders	Dr.MITIKA.S



SUBJECT SEMINAR PG PROGRAMME -2013

Sl.No.	Topics	Names
1.	Cell injury mechanisms and types of cell injury	Dr.MITIKA.S
2.	Hyperplasia, hypertrophy Atrophy Metaplasia	Dr.NIKITA.K
3.	Necrosis & Apoptosis	Dr.MITIKA.S
4.	Intracellular accumulation of pigments, cellular aging	Dr.NIKITA.K
5.	Acute inflammation mechanisms /mediators outcome of inflammation	Dr.MITIKA.S
6.	Chronic Inflammation, Granulomatous inflammation	Dr.NIKITA.K
7.	Wound healing	Dr.MITIKA.S
8.	Granulomatous diseases Part-I Pathogenesis features & diagnosis	Dr.NIKITA.K
9.	Granulomatous diseases Part-II Pathogenesis features & diagnosis	Dr.MITIKA.S
10.	Wound healing /repair /regeneration & healing in special tissues	Dr.NIKITA.K
11.	Normal hemostasis, Bleeding Disorders	Dr.MITIKA.S
12.	Coagulation disorders & DIC	Dr.NIKITA.K
13.	Thrombosis, embolism, infarction	Dr.MITIKA.S
14.	Shock	Dr.NIKITA.K
15.	Genetics- I Mendelian Disorders	Dr.MITIKA.S
16.	Genetics-II Autosomal disorders	Dr.NIKITA.K
17.	Genetics-III Sex linked disorders	Dr.MITIKA.S



Combined Basic Sciences Programme for Post Graduate courses Pathology Topics

Sl.No.	Topics
1.	Collection &dispatch of Specimen &filling lab forms
2.	Acute Inflammation
3.	Chronic Inflammation
4.	Haemopoiesis
5.	Lab diagnosis of Anemia
6.	Hemorrhagic Disorders
7.	Neoplasia
8.	Tumour markers
9.	FNAC,Laboratory visit
10.	Tissue repair & regeneration
11.	Blood Transfusion Principles of management
12.	Transfusion Hazards
13.	Blood Component Therapy.



WEEKLY TRAINING PROGRAME FOR PG

DAYS	TIME- 9 AM to 12 Noon	TIME-12 Noon to 1 PM	TIME- 2 PM TO 4 PM
MONDAY	Practical work in Section		UG Practicals
TUESDAY	Practical work in Section	Slide Discussion	UG Practicals
Wednesday	Practical work in Section		UG Practicals
THURSDAY	Practical work in Section		Seminar/ Journal Club
FRIDAY	Preparation for Dissertation		UG Practicals
SATURDAY	Practical work in Section		



Sl.No.	TOPICS	NAME	TEACHERS
14	Quality Control in Haematology	Dr. Mitika. S	Dr. T.Rajaram
15	Automation Eqpt in Haematology & usage	Dr.Nikita. K	Dr. S.P.Sharmila
16	Histopathology Equipments- Microtome, Automatic Tissue Process, Cryostat etc.	Dr.Nikita. K	Dr. T.Rajaram
17	Advanced Techniques including flow cytometry	Dr. Mitika. S	Dr.V. Mahanthachar
18	Mechanisms of cell injury	Dr. Mitika. S	Dr. T.Rajaram
19	Cellular adaptation	Dr.Nikita. K	Dr. T.Rajaram
20	Necrosis & Apoptosis	Dr. Mitika. S	Dr. T.Rajaram
21	Pigment metabolism	Dr.Nikita. K	Dr. S.P.Sharmila
22	Extra cellular matrix and cell matrix interactions	Dr. Mitika. S	Dr. Jyothi A.Raj
23	Hypersensitivity reactions Immunity & Hypersensitivity	Dr.Nikita. K	Dr. V. Mahanthachar
24	Autoimmune disorders	Dr. Mitika. S	Dr. V. Mahanthachar
25	Neoplasia (a) Aetiopathogenesis including oncogenes	Dr.Nikita. K	Dr. T.Rajaram
26	Neoplasia (b) Tumor Markers	Dr. Mitika. S	Dr. T.Rajaram
27	Genetics Autosomal disorders	Dr.Nikita. K	Dr. S.P.Sharmila
28	Genetics Sex linked disorders.	Dr. Mitika. S	Dr. S.P.Sharmila
29	Genetics diagnostic methods in genetic disorders	Dr.Nikita. K	Dr. T.Rajaram
30	Histological techniques – - Stains used - Special stains - Immunohistochemistry	Dr. Mitika. S	Dr. Jyothi A.Raj



SEMINAR TOPICS FOR POSTGRADUATES – 2018

Sl.No.	TOPICS	NAME	TEACHERS
1	Collection of blood + Anticoagulants + Various stains used in hematology	Dr. Mitika. S	Dr. T.Rajaram
2	Interpretation of peripheral smear	Dr. Nikita. K	Dr. T.Rajaram
3	Laboratory diagnosis of Anaemias - Microcytic Anaemia - Macrocytic Anaemia	Dr. Mitika. S	Dr.Jyothi A.Raj
4	Laboratory diagnosis of hemolytic anemia	Dr. Nikita. K	Dr. Jyothi A.Raj
5	Investigation of a case of hemorrhagic disorder	Dr. Mitika. S	Dr. V.Mahanthachar
6	Interpretation of Bone marrow aspiration / biopsy	Dr.Nikita. K	Dr. V.Mahanthachar
7	Non neoplastic leukocytic disorders	Dr. Mitika. S	Dr. V.Mahanthachar
8	Laboratory diagnosis of (a) Acute leukaemias	Dr.Nikita. K	Dr. S.P.Sharmila
	(b) Chronic leukaemias	Dr. Mitika. S	Dr. S.P.Sharmila
	(c) Lymphomas-HL & NHL	Dr.Nikita. K	Dr. S.P.Sharmila
9	Myelodysplastic Syndrome	Dr. Mitika. S	Dr. Jyothi A.Raj
10	Plasma cell disorders Myeloma	Dr.Nikita. K	Dr. T.Rajaram
11	Blood banking techniques	Dr. Mitika. S	Dr.Latha
12	Blood component therapy	Dr.Nikita. K	Dr. Latha
13	Stem cells and Bone marrow transplantation	Dr. Mitika. S	Dr. Shreedhar Murthy



Faculty recharging strategies (Refresher / orientation programs, workshops, training programs and similar programs).

- Workshops
- CMEs
- Conferences
- TOT (Training of Teachers)

Students and faculty in extension activities

- Blood donation camps
- Cancer screening programme.



Contributions of the department in generating new knowledge basic or applied .

- CPC – Clinic pathological Conference.
- Clinical Meetings.
- Morbidity & Mortality Meetings.



Clinicopathological Correlation

The following cases were presented for CPC:

1. Renal cell carcinoma predominantly oncocytic-Right. Shows involvement of capsule and perinephric fat. Renal vein is free.

Chronic cholecystitis

2. Papillary Carcinoma- Thyroid, Follicular variant
3. Adult granulosa cell tumor of the right ovary with torsion and haemorrhage
4. Well differentiated squamous cell carcinoma , pelvic dermoid cyst

Multiloculated peritoneal inclusion cyst

5. Papillary renal cell carcinoma type II with tumor emboli in renal vein-Nuclear grade II-III
 6. Nodular subungual malignant melanoma of ring finger. Clark level-V. Metastasis in two of the axillary lymph nodes.
 7. Gastrointestinal stromal tumor of jejunum with smooth muscle differentiation – High risk.
 8. Mixed germ cell tumor of Left testis with predominant embryonal carcinoma and focus of seminoma with metastatic deposits in lymph node
 9. Benign phyllodes tumor-Right breast.
- Fibrocystic disease-Left breast
10. Osteogenic sarcoma, lower end of left femur(Giant cell rich type)
 11. Tubercular granulomatous inflammation involving caecum & adjoining lymph nodes
 12. Medullary carcinoma of right breast(invasive)

No residual tumor was seen in the modified radical dissection of breast specimen

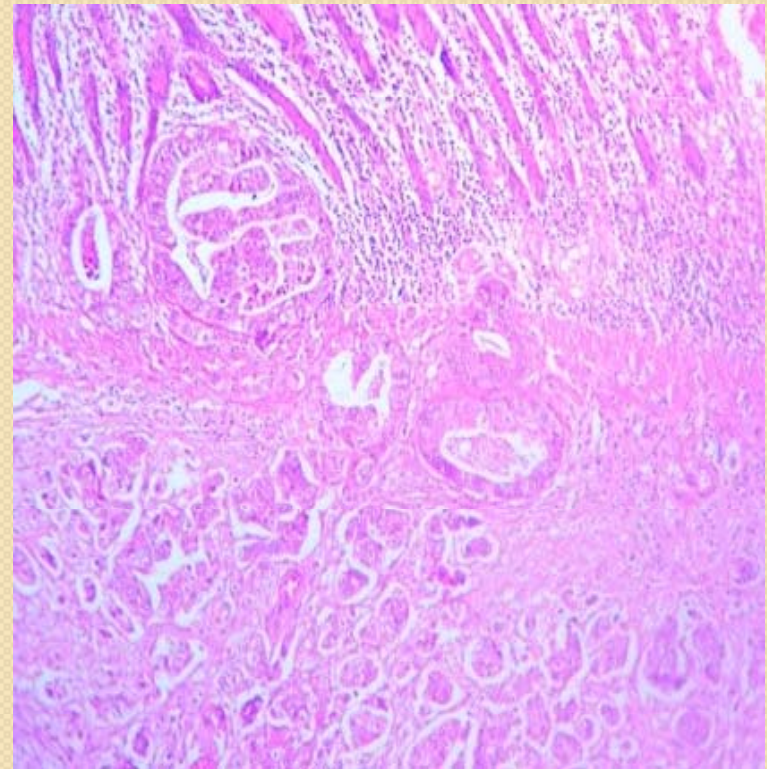
13. A case of post BCG vaccination axillary lymphadenitis, shows extensive tubercular lesions.

Primary Adenocarcinoma of Jejunum-A rare case report with clinico-pathological review

Annular constricted ulceroproliferative growth of the tumor



Tumor infiltrating the muscularis propria (H&Ex10).



Littoral Cell Angioma



Fig 1:Sectioned surface showed multiple tiny blackish spongy map like areas
Diagnosis -Littoral Cell Angioma

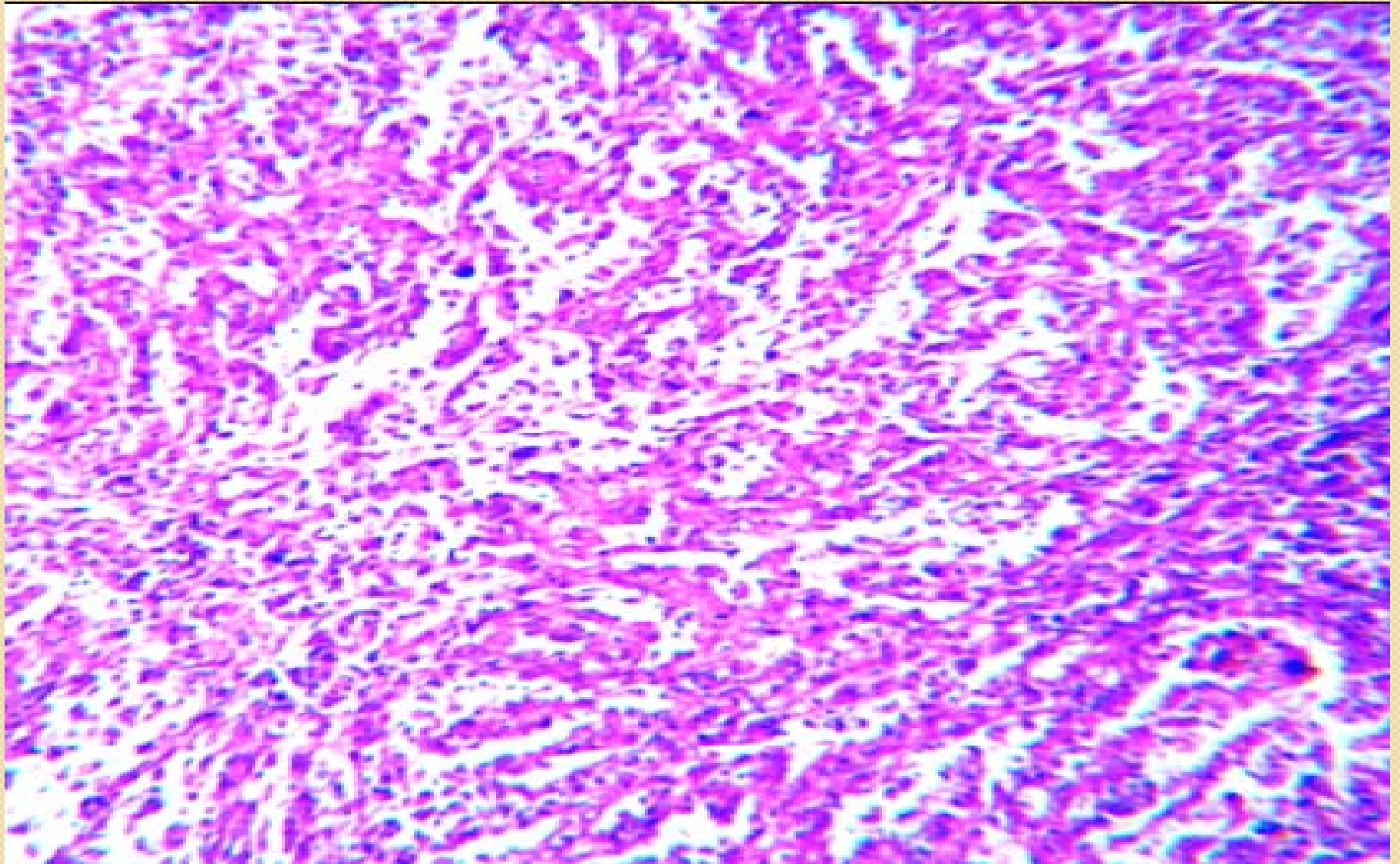


Fig 2: Red pulp shows multiple foci of ill-defined anastomosing narrow vascular channels and cyst like spaces, lined by plump, tall columnar endothelial cells –(H&E- X 100)

SUDDEN CARDIAC DEATH IN A YOUNG ADULT- ARVD



Gross - Thinned out right ventricle with increased fat deposition
Diagnosis - Arrhythmogenic Right Ventricular Dysplasia

deposition
osition
plasia

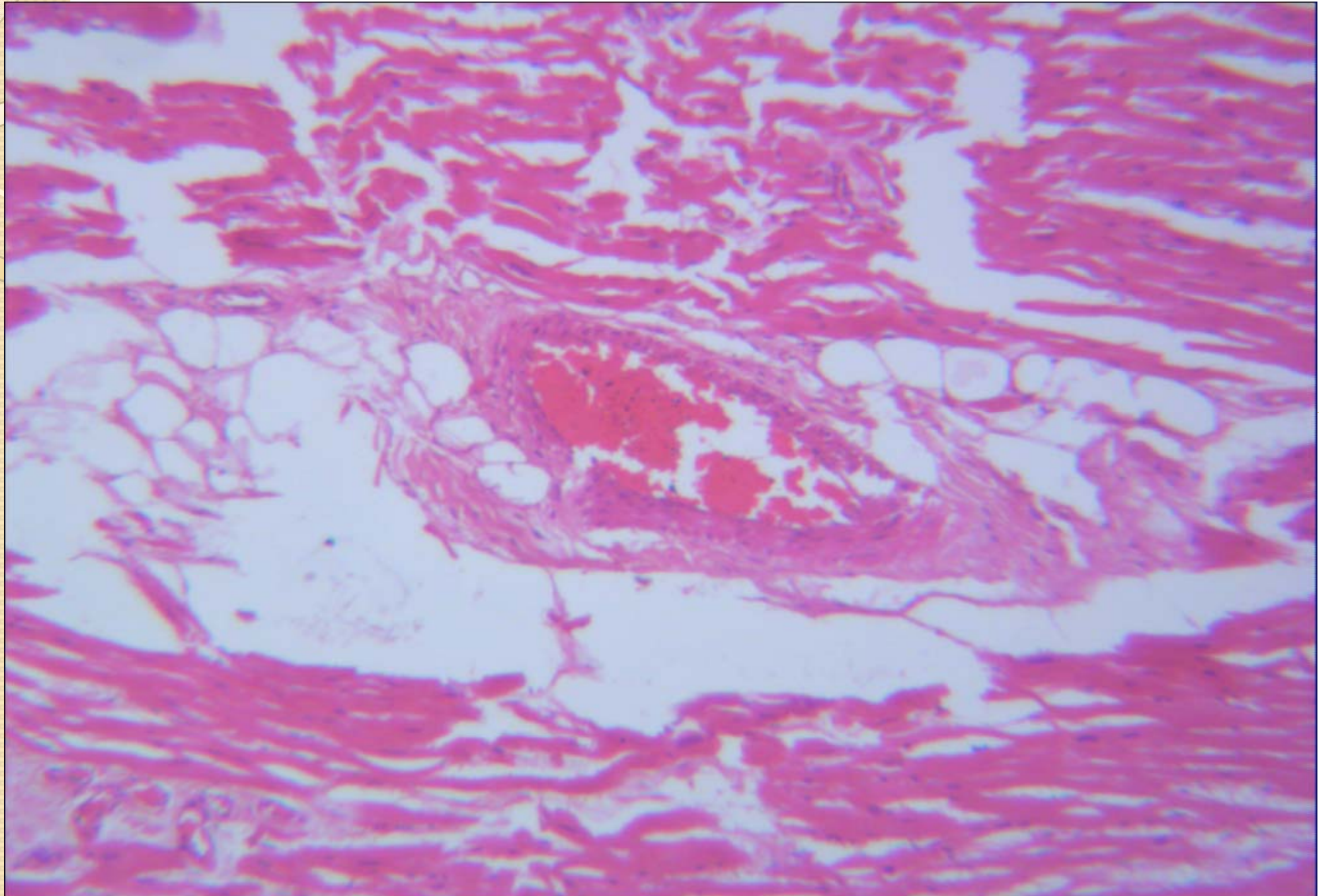


Fig 6: Chordae tendinae (Right Ventricle)-H&E- x400

Poster Presentations

Leukocytoclastic vasculitis - A Case Report

INTRODUCTION

Leukocytoclastic vasculitis (LCV), also known as hypersensitivity vasculitis and hypersensitivity angitis, is a histopathological term commonly used to denote a small vessel vasculitis.¹ It is very rare disorder. On a study, in Spain, LCV occurs in 10-20 persons per million persons per year.² LCV is secondary to many causes but 50 percent of cases are idiopathic.³ Many studies have not been done in this context. We are presenting this case for its rarity. The prognosis of LCV is generally good, but if the kidney, GIT, lung, heart or CNS is involved the prognosis becomes poor.⁴

CASE REPORT

We present a case of 8 months old female child who developed fever and lacy reticular rashes over lower limbs since 1 week for which she received some IM injection by a private practitioner. Soon after which she developed well defined hyperpigmentation and necrosis on both the buttocks. The child was referred to dermatology department where skin biopsy was taken from the gluteal region and sent for histopathological examination.

Microscopically, skin biopsy showed normal thickness of epidermis. There was keratotic plugging at few sites. The prickle cells showed vacuolation. The papillary dermis and upper dermis contained small capillaries infiltrated by neutrophils. Some of the dermal appendages were also surrounded by a mixture of neutrophils and lymphocytes. Fragmented nuclei of neutrophils were seen in perivascular location. Minimal amount of dermal fat was seen which also showed at periphery perivascular neutrophilic collections and nuclear debris with fibrin.

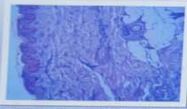


Fig 1: Photomicrograph showing dermal appendages surrounded by chronic inflammatory infiltrate (H&E, 100).

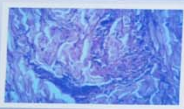


Fig 2: Photomicrograph showing perivascular cuffing of neutrophils and lymphocytes (H&E, 400).

DISCUSSION

- Circulating immune complexes were believed to be the cause of leukocytoclastic vasculitis.¹
- Hypersensitivity vasculitis due to drugs can be identified on the basis of five characteristics (1) age > 16 years (2) use of possible offending drug in temporal relation to the symptoms (3) palpable purpura (4) maculopapular rash and (5) biopsy of skin showing neutrophils around the arteriole or venules.²
- Most of the drug induced vasculitis is of hypersensitivity type and presumed to be immune complex mediated, it probably accounts for 10-20% of small vessel vasculitis.³
- Most common drugs that cause LCV are antibiotics, diuretics, NSAIDs, anticonvulsants, antipsychotics, cardiac drugs and others.⁴
- In our case there is development of palpable purpura, rash which was followed by the IM injection presumably NSAID. Biopsy from the purpura showed leukocytoclastic vasculitis.

CONCLUSION

Any maculopapular rash should be examined carefully as it can be leukocytoclastic vasculitis so that it could be diagnosed and treated at early stages for better prognosis.

ACKNOWLEDGEMENTS:

Department of Pathology, Department of Paediatrics and Department of Dermatology, Rajarajeswari Medical College, Mysore Road, Bangalore-560074.

LIST OF REFERENCES

- Reeves R, Martin S, Zlot T. Systemic leukocytoclastic vasculitis secondary to the use of naproxen and requiring amputation. *Journal of medical case reports* 2010;4: 204.
- Cullen JC. Leukocytoclastic vasculitis. *Medical update* September 2010.
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- Reeves R, Martin S, Zlot T. Systemic leukocytoclastic vasculitis secondary to the use of naproxen and requiring amputation. *Journal of medical case reports* 2010;4: 204.
- Reeves R, Martin S, Zlot T. Systemic leukocytoclastic vasculitis secondary to the use of naproxen and requiring amputation. *Journal of medical case reports* 2010;4: 204.



PANCREATIC HETEROPTOPIA IN JEJUNUM PRESENTING AS SMALL BOWEL OBSTRUCTION- A CASE REPORT

Authors : Dr. Nikitha Kairanna, Dr. Jyothi .A Raj, Dr. Sharmila .P.S, Dr. T. Rajaram
Department of Pathology,

Rajarajeswari Medical College and Hospital, Mysore Road, Bangalore - 560 074

INTRODUCTION

Heterotopic pancreas refers to the presence of pancreatic tissue outside the normal location. It lacks anatomic or vascular relation to orthotopic pancreas. The term was first used by de Castro et al. It is a relatively infrequent lesion, with an incidence ranging from 0.1% to 12% in autopsy studies.¹ Typically, it is detected as an incidental finding at laparotomy or autopsy anywhere along the gastrointestinal tract.² Most common site is the stomach. Jejunum is a rare location for ectopic pancreas.³ Macroscopically, it contains any mixture of tissues found in the normal pancreas. Symptoms, when present depend on the location and local effects of pancreatic tissue. Complications include inflammation, obstruction or malignant transformation.⁴

CASE REPORT

A 48 year old male presented with vomiting and tender abdomen. A clinical diagnosis of gastric outlet obstruction was made. Endoscopy showed an ulcer measuring 3x2cm in the first part of the duodenum. The scope could not be negotiated into the 2nd part of duodenum. Total gastrectomy with gastrojejunostomy was planned. During surgery, a polyp measuring 2x1cm was found in the proximal jejunum. The lesion was excised and sent for histopathological examination. Symptoms resolved within a fortnight.

Gross: A grey white to grey brown soft tissue bit measuring 1.5 cm across.

Microscopy: Shown intact mucosa of jejunum. The submucosa showed heterotopic benign pancreatic tissue composed of ducts and acinariform type II, extending up to the muscular layer (Figs. 1, 2, 3 & 4).

DISCUSSION

Heterotopic pancreas is relatively rare. It is defined as pancreatic tissue that lacks anatomic and vascular communication with the normal pancreas, possessing its own duct system and blood supply.

The pancreas is derived from several endodermal invaginations of the primitive duodenal wall. Heterotopias are believed to arise during embryologic development of the gastrointestinal tract either by implantation of pancreatic fragments during rotation of the foregut or from metaplasia of endodermal tissue which migrates to the submucosa during embryonic life.⁵

The precise incidence of heterotopic pancreas is not known, with rates ranging from 0.1% to 13% in various autopsy studies. It can be located anywhere in the gastrointestinal tract, most commonly in the stomach. Jejunum is a rare location for ectopic pancreas.⁶

Heterotopic pancreas is usually an incidental finding at laparotomy or endoscopy. Most patients are asymptomatic. When present, symptoms vary depending on the location and size of the lesion. Common symptoms include upper abdominal pain, nausea, vomiting and gastrointestinal bleeding. Small bowel obstruction is rare. Symptoms are related to local secretion of hormones and enzymes resulting in irritation, inflammation and spasm.⁷

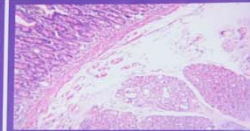


Fig 1: Photomicrograph showing jejunal mucosa with longer pancreatic tissue in the submucosa (H&E, 100).

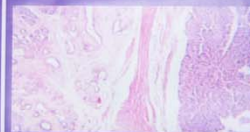


Fig 2: Photomicrograph showing pancreatic acini & ducts with intervening muscle (H&E, 100).



Fig 3: Photomicrograph showing islands of pancreatic tissue situated in submucosa (H&E, 100).



Fig 4: Photomicrograph showing acinariform type II pancreas (H&E, 400).

Klab first described the histological appearance of heterotopic pancreas. It may contain any admixture of tissues found in the normal pancreas. Heterotopias are classified into three types: Type I: ducts, acini and endocrine islets. Type II: ducts and acini. Type III: ducts with few acini or dilated ducts only.⁸

Heterotopic pancreas is usually buried in the submucosa, making it difficult to distinguish heterotopias from gastrointestinal stromal tumors on endoscopy. Frozen sections are helpful in differentiating primary from metastatic pancreatic tissue and to exclude stromal tumors. Histopathological examination is mandatory for confirmation.

Surgery is the treatment of choice in symptomatic patients.

CONCLUSION

Most cases of heterotopic pancreas remain clinically silent. It must be considered in the differential diagnosis of small bowel obstruction. It is interpreted as the more common epithelial or mesenchymal polyp on endoscopy. Frozen section is recommended for submucosal epithelial masses. Histologic confirmation is a must to exclude malignancy.

KEY WORDS

Heterotopic pancreas, jejunum, obstruction

ACKNOWLEDGEMENT

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Contd..

ADENOMYOMA IN A NON COMMUNICATING DIDELPHYS UTERUS,¹ BICORNIS UNICOLIS - A RARE CASE REPORT

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Presenting Author : Dr. Nikitha .V. Kairanna
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INTRODUCTION

- The prevalence of congenital uterine malformations is about 0.5%¹.
- The incidence has been reported to range from 1 in 10 to 1 in 1600 women¹.
- Bicornuate uterus results from congenital incomplete fusion of the bilateral müllerian (paramesonephric) duct¹.
- There is little literature regarding the relation of adenomyosis to congenital abnormalities of uterus¹.

CASE HISTORY

- A 32 year old nulliparous female presented with history of dysmenorrhea since 13 years.
- Dysmenorrhea was severe, gripping in nature and localized to the lower abdomen.
- Menstrual history was regular.
- No history of menorrhagia, tuberculosis and pelvic inflammatory disorder.

Ultrasonographic findings

- A diagnosis of fundal anterior wall uterine fibroid or right ovarian tumor was suggested.

Peroperative findings

- Uterus didelaphs with multiple leiomyoma are seen.
- Hysterectomy done and sent for histopathological examination.

PATHOLOGIC FINDINGS

Macroscopy

- Specimen consists of cut opened bicornuate uterus with a rudimentary horn on the lateral aspect. Uterus and cervix measures 8x6x2 cm. Rudimentary horn measures 6x4x3cm. Cervix appears unremarkable (Fig. 1).
- Cut surface of the uterus shows multiple, tiny, intramural and subserosal leiomyoma ranging from 0.3-2.5 cm in diameter. Cut surface of which is grey white, whorled.
- Rudimentary horn consists of globular mass measuring 5x3x2.5 cm. Cut surface of which is grey white and trabeculated. The endometrial canal of rudimentary horn appears to be obliterated and pushed to one end. It is not connected to main endometrial and endocervical canal. (Fig. 2)



Fig. 1: Photograph of uterus with nodular areas on the surface, showing a rudimentary horn and a subserosal leiomyoma of uterus.



Fig. 2: Photograph showing cut surface of uterus, didelaphs with adenomyoma in the rudimentary horn.

Microscopy:

- Sections from endometrium of the uterus show proliferative phase. (Fig. 3)
- Sections from myometrium of uterus show foci of adenomyosis with leiomyomata and cervix show features of non specific inflammation. (Fig. 3 & Fig. 4)
- Sections from endometrium of rudimentary horn show proliferative phase. (Fig. 5)
- Sections from the globular mass of the rudimentary horn show an encapsulated mass of smooth muscle bundles with scattered endometrial tissue suggesting adenomyoma. (Fig. 6)
- So the final histopathological diagnosis is adenomyoma in didelaphs- Bicornis, Unicollis uterus.

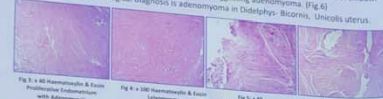


Fig. 3: 40x Hematoxylin & Eosin (H&E) stain showing proliferative phase of endometrium with adenomyosis.
Fig. 4: 100x Hematoxylin & Eosin (H&E) stain showing non-specific inflammation.
Fig. 5: 40x Hematoxylin & Eosin (H&E) stain showing proliferative phase of endometrium.
Fig. 6: 40x Hematoxylin & Eosin (H&E) stain showing encapsulated mass of smooth muscle bundles in the rudimentary horn.

DISCUSSION

- Uterine didelaphs results from failure of the fusion of the inferior parts of the paramesonephric ducts. If the duplication involves only the superior part of the body of the uterus, the condition is bicornuate uterus. The patients with complete or partial atresia of one of the paramesonephric ducts, the rudimentary part lies as an appendage to the well developed side².
- Diagnosis itself is often difficult and delayed till the fertile period or upto pregnancy³.
- Our case belongs to class IV variety under American fertility Society (AFS) classification scheme of congenital uterine anomalies⁴.
- Pregnancy in a non communicating rudimentary horn is a rare and life threatening condition⁵.
- Our case was clinically mistaken for subserosal fibroid or solid ovarian tumor. Peroperatively uterine didelaphs along with the multiple fibroids was detected and hysterectomy was performed.
- Histopathological examination revealed adenomyosis and multiple leiomyomata in the uterus and adenomyoma in the rudimentary horn which was a rare entity described in the literature.
- Adenomyoma is a benign localized balanced proliferation composed of endometrial tissue and smooth muscle bundles in the myometrium⁶.

CONCLUSION

- Congenital uterine anomalies account for 0.5%.
- It is very important to identify these uterine malformations as it is associated with infertility, late miscarriages and preterm deliveries and high incidence of early pregnancy loss along with gynaecological complications.
- Presence of adenomyoma in the rudimentary horn is the rarest entity reported till date.

ACKNOWLEDGEMENT:

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PARATHYROID ADENOMA- PRESENTED AS AN ACUTE ABDOMEN

Introduction:

Parathyroid adenoma is the most common cause of hyperparathyroidism accounting to 85% of cases in most series¹. A high index of suspicion and knowledge of newer screening techniques for detecting hyperparathyroidism result in more such patients whose disease is curable by surgical means². It is becoming increasingly evident, that many patients with occult parathyroid adenomas have gone undiagnosed and suffered needless disability³. Hence detection of parathyroid neoplasm and its consequences is important.

Case history:

A 37 year old male patient presented with complaint of acute pain abdomen and was diagnosed with multiple renal calculi in both the kidneys. The investigations revealed that the calcium level of the patient was raised. The patient level of the patient was 13mg/dl.

Ultrasonographic findings of neck:

The thyroid lobes were normal. There was a well defined oval hypoechoic well encapsulated lesion with posterior to upper pole of the left thyroid gland. The lesion measured 0.5x0.3x0.3 cm. Impression of left parathyroid adenoma was suggested. The lesion was surgically excised and was sent for histopathological examination.

Pathologic Findings:

Gross:

Received multiple bits of grey white to grey brown bits of tissue. The largest measured 1.2 cm, the cut surface showed a well circumscribed, greyish white homogeneous mass which measured 1 cm in diameter. The smallest measured 0.5 cm, the cut surface showed grey brown appearance.

Microscopy:

Sections studied showed a well capsulated mass composed of round to polyhedral chief cells with eosinophilic to vacuolated cytoplasm and fibrous stroma. Few scattered oxyphil cells are also seen. The parathyroid compressed normal parathyroid glandular tissue along with normal fat was noted. Focal lymphoid aggregates were also seen. The histological diagnosis of Parathyroid Adenoma was made.



Fig. 1: Photomicrograph showing well capsulated parathyroid adenoma H & E, 4X.

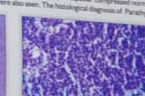


Fig. 2: Photomicrograph showing chief cells of parathyroid adenoma H & E, 40X.



Fig. 3: Photomicrograph showing clear cells and fibrovascular stroma of parathyroid adenoma H & E, 40X.

Discussion:

- Primary hyperparathyroidism is a disorder characterized by chronic poorly regulated excessive secretion of parathyroid hormone that results in hypercalcaemia⁴.
- Most common cause of primary hyperparathyroidism is a solitary parathyroid adenoma (90%) arising in the sporadic setting⁵.
- Prevalence of primary hyperparathyroidism in general population is at 0.1-0.3%⁶.
- Parathyroid adenoma typically involves a single gland however multiple adenomas either, unilateral or bilateral have been reported⁷.
- It has been estimated, however that approximately 90% of people with primary hyperparathyroidism remain undetected.
- Hypercalcaemia or hyperparathyroidism is typically discovered accidentally by routinely done serum calcium.
- Most parathyroid adenomas are functional and manifest hypercalcaemia causing clinical bone disease, renal stones, hypercalcaemic crisis which represent obvious manifestation of the disease⁸.
- Surgery is the only curative treatment for parathyroid adenoma⁹.

Conclusion:

Our patient came with the complaint of acute pain abdomen. The relevant investigations showed multiple renal calculi with raised calcium levels. There was no palpable mass in the neck. Later, he was taken for ultrasonography of neck which detected parathyroid adenoma. Hence in case of multiple renal calculi, it is important to rule out parathyroid adenoma, occult or otherwise.

Acknowledgements:

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Contd..

BCG vaccine induced suppurative lymphadenitis in the axilla - A case report

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Rajarajeswari Medical College and Hospital, Mysore road, Bangalore-560074.

Introduction

Bacille Calmette Guérin (BCG) is a live attenuated vaccine derived from a strain of *Mycobacterium bovis*. It is part of the World Health Organisation's expanded program for immunisation.¹ It is a safe and effective vaccine but complications are known to occur in up to 1.9% of infants. These include local ulceration, regional lymphadenitis, systemic vaccination, hypersensitivity reactions, hypertrophic scars, disseminated infections and hepatosplenomegaly. The associated disease is called "BCGitis". Most of these complications are self limiting. The incidence of regional suppurative lymphadenitis ranges from 0.1 to 38 per 1000.² Several vaccine and host-related factors have been implicated in its pathogenesis. Pathologic findings in post-BCG suppurative lymphadenitis could be related to the patient's immune status, alerting the clinician to a possible immunodeficiency state.³

Case report

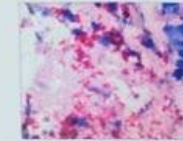
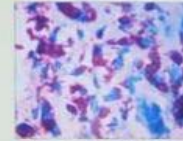
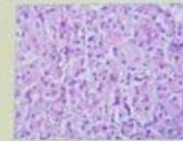
A six month old infant presented to the paediatrics department with a swelling in the left axilla. On examination, the left axillary lymph node was enlarged and fluctuant. The overlying skin was erythematous with edema. Immunisation schedule of the infant was up to date, including BCG vaccination at birth. A clinical diagnosis of abscess in the left axillary lymph node was made. The node was drained, remnants were excised and sent for histopathological examination.

Gross

Specimen consisted of multiple friable and necrotic, grey white soft tissue bits, amounting to 3 cs.

Microscopy

Showed fragments of tissue composed of sheets of histiocytes, epithelioid cells, fat, reactive granulation, and lymphocytes. The histiocytes were polygonal and spindle shaped, had pale foamy and granular cytoplasm, forming discrete granulomas with multinucleated giant cells (Figs 1&2). Areas of necrosis and haemorrhage were seen outside the granulomas. Ziehl-Neelsen stain revealed a heavy load of acid fast bacilli (AFB) (Figs 3&4). A diagnosis of post BCG vaccination axillary lymphadenitis, with extensive tubercular lesions was made.



Discussion

Intradermal BCG vaccination results in a cutaneous nodule at the injection site and enlargement of the draining lymph node, constituting a classic primary complex. Invasion of regional lymph nodes by the virulent strain of BCG is part of successful vaccination.⁴ Regional lymphadenitis is most often subclinical and undergoes spontaneous regression. However, some infants develop suppurative lymphadenitis, causing concern to the parents and the clinician. Its occurrence depends on the residual virulence of the BCG substrain, administered dose, technique and immune response to the vaccine.⁵ Microscopic pattern of post BCG lymphadenitis might be related to immune status of the patient. In patients with normal immunity, the histologic appearance is similar to tuberculous lymphadenitis, with epithelioid granulomas and Langhans giant cells (type I granulomas). Immunosuppressed patients have a diffuse infiltrate of histiocytes, with abundant dirty grey cytoplasm and plump nuclei (diffuse lepromatous type II granulomas).⁶ Although faulty administration of BCG vaccine is the most common cause for a florid granulomatous reaction in an axillary lymph node, the possibility of an immunodeficiency state, particularly undetected HIV infection should not be ignored.⁷

Conclusion

Regional lymphadenitis is a common sequel of BCG vaccination. Suppurative lymphadenitis, post BCG vaccine, could have been mistaken for an abscess. Accurate diagnosis is essential, not only to prevent rupture and sinus formation, but also to rule out immunodeficiency. The type of granulomas and appearance of histiocytes in pathological examination could offer a clue to the immune status of the individual. Children with post vaccine complications should be screened for HIV. These adverse reactions also influence the choice of vaccine preparation and acceptance in World Health Organisation's expanded immunisation program.

Key words

BCG vaccine, lymphadenitis, AFB, immune status

Acknowledgements:

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DISSERTATIONS 2011 Batch

1. Spectrum of neoplastic and non neoplastic lesions in the fallopian tube in a tertiary care hospital. - Dr. Nikita Valerina Khairanna.
2. Etiopathological study of Anaemias in women of reproductive age group and in selected cases, hemoglobin electrophoresis, among patients in teaching hospital during the period 1/6/2011 to 31/12/2012- Dr. Mitika Srivastav.

DISSERTATIONS 2012 Batch

3. Histopathological study of soft tissue tumors at Rajarajeshwari Medical College and Hospital- Dr. Amit Bharu.
4. Spectrum of benign breast disease in females of reproductive age group in Tertiary Care Hospital, Bangalore- Dr Ankur Gupta
5. Incidence of Hashimoto Thyroiditis in FNAC and Thyroidectomy specimens in correlation with T3, T4 & TSH in a tertiary care hospital – Dr. Paul M.F
6. Histomorphological study of Leprosy cases in Rajarajeshwari Medical College & Hospital – Dr. Jeena Johns
7. Clinico-Pathological study of patients undergoing Hysterectomy at Tertiary care hospital – Dr. Dhaval Prajapati.



DISSERTATIONS 2013 Batch

1. Histopathological spectrum of non-neoplastic and neoplastic lesions of thyroid A-5yrs'study of thyroidectomy specimens.-Dr.Padmavathi.M
2. Study of Non Neoplastic and Neoplastic lesions of ovary encountered at RRMCH.
Dr.Kannu Priya
3. A descriptive Histopathological study of Endometrium in perimenopausal and postmenopausal women in tertiary care hospital. RRMCH, Bangalore.
Dr.Ramya.R
4. Study of cytomorphological patterns of palpable Breast lesions.
Dr.Reshma Anegundi
5. Histopathological study of diseases of Small and Large Intestine.
Dr.Nithun Reddy.C
6. Retrospective and prospective study of Fine Neddle Aspiration Cytology of non-neoplastic & neoplastic conditions affecting the Lymphnodes. Dr. Radhika.Y.G.



POSTER PRESENTATIONS-NATIONAL & INTERNATIONAL-12

- IAP-ID mid-year teaching programme at MVJ Medical College & Hospital, Bangalore on 29th& 30th June 2012: Poster presentation Adenomyoma in a noncommunicating Uterus Didelphys, Bicornis, Unicollis – A rare case report. Presented by: Dr. Nikhitha V Kairanna, Dr. Sharmila S P, Dr. Sushma T A, Dr. T.Rajaram
- IAP-ID mid-year teaching programme by MVJ Medical College & Hospital, Bangalore 29th& 30th June 2012: Poster presentation: Granulosa cell tumor with unusual presentation. By Dr. Mitika S, Dr. Sharmila S P, Dr. Sushma T A, Dr. Jyothi A Raj, Dr. T Rajaram.
- IMSA Southern Conference at RRMCH 3 – 4 August 2012 case report: Parathyroid adenoma presenting as acute abdomen. By Dr. Nikitha V Kairanna, Dr.S.P.Sharmila, Dr. Usha Ramchandra, Dr. T Rajaram.
- IMSA Southern Conference at RRMCH 3 – 4 August 2012 case report: Leucocytoclastic Vasculitis. By Dr. Mitika S, Dr. Usha Ramchandra, Dr. T Rajaram.
- 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Incidental littoral cell angioma of spleen, and autopsy finding: A rare cause of mysterious death Presented by: Dr. Ankur Gupta, Dr,Sharmila P.S,
- 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Primary cavernous hemangioma of ovary coexisting with contra lateral xanthogranulomatous salpingitis – An incidental finding – A rare coexistence. Presented by: Dr. Paul.M.F, Dr,Sharmila P.S



31st Annual conference IMSACON, 5th& 6th October-2013; Title: Primary Adenocarcinoma of the Jejunum: A case report with clinicopathological review Presented by: Dr. Dhaval Prajapati Dr, Sharmila P.S

- 31st Annual conference IMSACON, 5th& 6th October-2013; Title: A case of metastasis of renal cell carcinoma in the right nasal cavity. Presented by: Dr. Amith Bharu, Dr. Mahantachar V
- 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Infantile Osteopetrosis – A rare case report. Presented by: Dr. Jeena Johns, , Dr. T Rajaram.
- . Annual conference KCIAPM on 10/09/2011 at SDUMC, Kolar Title – Well differentiated Squamous cell Carcinoma in a Pelvic Dermoid. Presented by Dr. Hemamalini, Dr. Usha Ramachandra, Dr. T. Rajaram,
- 39th Annual conference KCIAPM – 06/09/2012 to 09/09/2012, Bangalore Title: BCG vaccine induced suppurative lymphadenitis in the axilla – A case report Presented by: Dr. Mitika S, Dr. Jyothi A Raj, Dr. Mahanthachar. V, Dr. T. Rajaram.
- 39th Annual conference KCIAPM - 06/09/2012 to 09/09/2012, Bangalore Title: Pancreatic Heterotopia in Jejunum Presenting as small bowel obstruction – A case report. Presented by: Dr. Nikitha VK, Dr. Jyothi A Raj, Dr. Sharmila PS, Dr. T. Rajaram.



ORAL PAPERS -9

1. 31st Annual conference IMSACON, 5th& 6th October-2013; Histomorphological spectrum of neoplasm of nasal cavity and Para nasal Sinuses.Presented by: Dr. Mithika
2. 31stAnnual conference IMSACON, 5th& 6th October-2013;Diagnostic value of endometrial aspiration cytology in neoplastic & non-neoplastic lesions.Presented by: Dr. K.Shashikala,
3. 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Silver staining of nucleolar organizer regions in prostatic lesions.Presented by: Dr. Sushma.T.A,
4. 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Spectrum of thyroid lesions in thyroidectomy specimens.Presented by: Dr. Paul.M.F,
5. 31st Annual conference IMSACON, 5th& 6th October-2013; Title:Unwrapping the diagnosis of tuberculosis in tertiary care: A clinicopathological profile.Presented by: Dr. Ankur Gupta,
6. 31st Annual conference IMSACON, 5th& 6th October-2013Title: Histopathological spectrum of gastrointestinal lesions at tertiary care hospital.Presented by: Dr. Dhaval.J.P,
7. 31st Annual conference IMSACON, 5th& 6th October-2013; Title: Fine needle aspiration cytology in diagnosis of breast lesions.Presented by: Dr. Amit Bharu
8. 31st Annual conference IMSACON, 5th& 6th October-2013; Histopathologicalprofile of unusual findings in medico- legal autopsies – an autopsy study with brief review of Literature – Dr Nikitha.V
9. Diagnosis of Acute Appendicitis with Pre-operative Inflammatory Markersand Post-operative Histopathological findings at RRMCH. Dr. Jeena Johns. KC-IAPM State 40th Annual State Conference BLDEU Bijapur 2013 held onSep 2013.

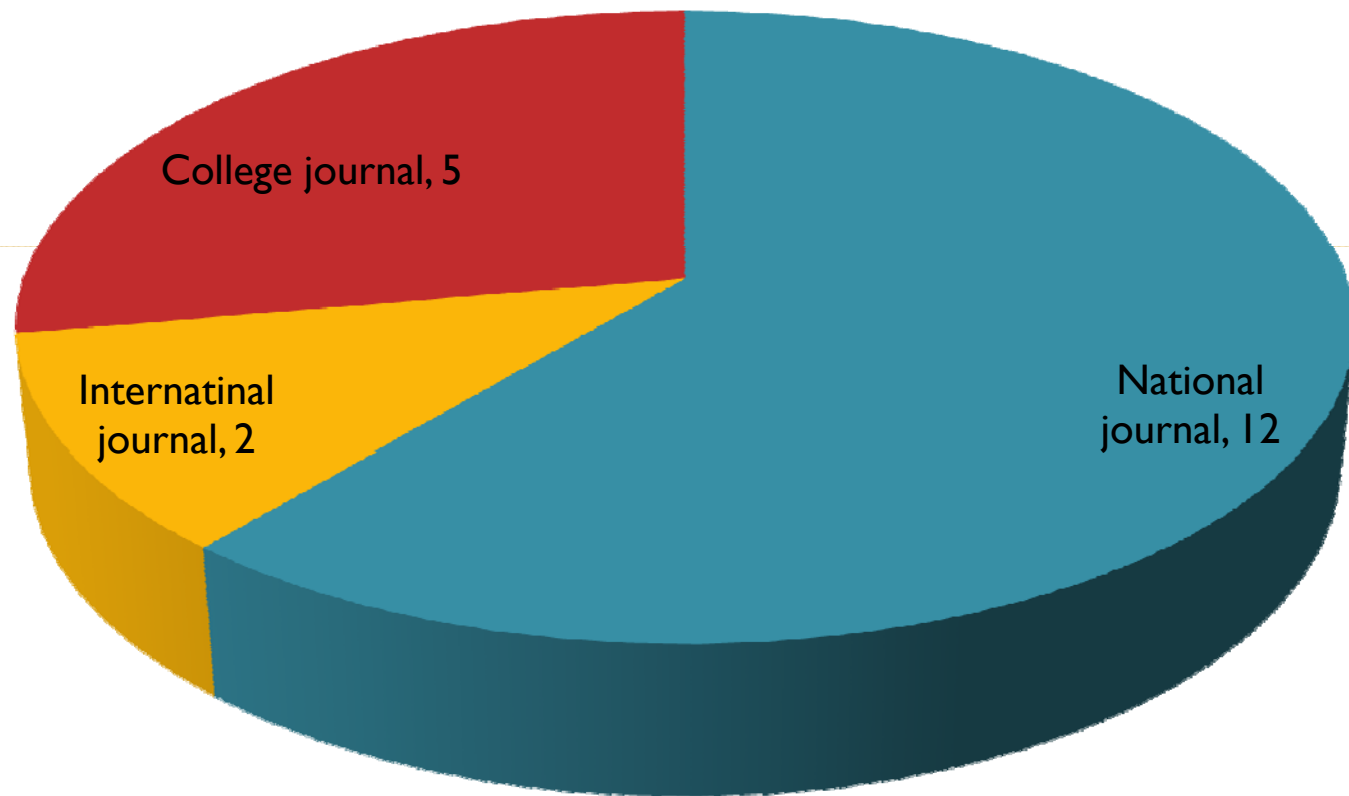


Publications

- **Total no: 19**
- **National Publications: 12**
- **International Publications: 2**
- **College Journal Publications: 5**



Publications





INTERNATIONAL PUBLICATIONS-2

- Primary Fallopian tube Carcinoma – Case report and Review of Literature.
Dr. Jyothi A Raj, Dr. Sharmila.S.P, Dr. Usha Ramachandra.
Accepted for publication in J of International Medical Sciences Academy

- Sushma TA, Shashikala K, Sharmila PS. Adenomyoma in a noncommunicating didelphys uterus bicornis unicollis –A rare case report. *Int J Pharm Bio Sci* 2013 April; 4(2):Vol I: 665-670



NATIONAL PUBLICATIONS-12

- Jyothi A Raj, Jagadeesha M, Naveen S, Usha Ramachandra. Xanthogranulomatous Oophoritis: Pathologic findings with clinical correlation. *J of Indian Medical Assoc* Sept 2012; vol 2:110:653-4
- Jyothi A Raj, Sharmila SP, T Rajaram. Pancreatic heterotopias in jejunum presenting as small bowel obstruction. *Medica Innovatica* 2013; 2: 101-4
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- Rayamane AP, Chandrashekhariah, Pradeep Kumar, Kottabagi RB, T Rajaram. Sudden cardiac death in a young adult. *J Karn. Med.Legal Society* Jul 2012 vol 2; 41-45
- Jyothi A Raj, Sharmila PS, Mahantachar V, T Rajaram. Metastatic testicular mixed germ cell tumors, a diagnostic dilemma in cytology. *J Clin Biomed Scs* 2013; 3(2): 90-95
- AP Rayamane, Pradeepkumar MV, Kotabagi RB, Chandrashekhariah C, T Rajaram, Mahanthachar V. Sudden cardiac death in young adults. *Jour.Kar.Med.Leg.Soc.* Jul-Dec2013(22)27-33



RRMCH-- COLLEGE ACADEMIC JOURNAL ARTICLES-5

1. Sharmila PS, Shushan Shweta J, T Rajaram, Sushma TA. Umbilical pilonidal sinus – A clinical Dilemma. *J of Medical Sciences* 2013 April; vol 1(1): 45-6
- 2Jyothi A Raj, Sharmila PS, Nikitha V, Usha Ramachandra, T Rajaram. Morphological evaluation of parathyroid adenoma. *Journal Of Medical Sciences* 2013; vol 1(1): 47-50
- 3 Sharmila PS, Jyothi A Raj, Mitika S. Histomorphological spectrum of neoplasms in the nasal cavity and paranasal sinuses in a tertiary care hospital. *Journal of Medical Sciences* 2013; vol 2(1): 11-20
- 4 Shashikala K, Sharmila PS, Sushma TA, Ankur G. Kyrle's disease – a rare disorder of Keratinization secondary to chronic renal failure. *Journal of Medical Sciences*. 2013 April; vol 1(1): 41-3
- 5 SushmaTA, Shashikala K, Sharmila PS, Prashanth V, Nagaraj T, Mitika S. Papillary Thyroid carcinoma with tracheal invasion. *Journal of Medical Sciences*. 2013April; vol 1(1): 37-9



List of ongoing research projects -Faculty -8

Clinicopathological study of histopathological profile of non-neoplastic lesions of skin with special reference to granulomatous inflammation.

DrSharmila PS, DrJyothi A Raj, DrShwetha S Jayker

Histopathological profile of unusual findings in medico- legal autopsies – an autopsy study with brief review of Literature.

DrShashikala K, DrSharmila PS

Study of hyperpigmented lesions – clinicopathological correlation.

DrShwetha S Jayker, DrJyothi A Raj, DrSharmila PS

Clinicopathological study of Lichenoid lesions of skin.

DrJyothi A Raj, DrShwetha S Jayker, DrSharmila PS

Perinatal Autopsies: Clinicopathological correlation: A Hospital based study.

DrSharmila PS, DrShashikala K

Histopathological study of liver in serial forensic autopsies conducted at tertiary care hospital

Dr T Rajaram

Histopathological study of cardiac lesions in sudden unexpected and natural deaths in young adults of age between 18- 35 years- an autopsy study. DrMahantachar V

Study of pathology of spleen- a 5- year study

DrJyothi A Raj, DrSharmila PS, Dr T Rajaram, DrMahantachar V



List of research projects completed in the year 2012-13

- Histomorphological study of Teratomas in a Tertiary care hospital. Dr. Sushma. T.A, Dr. Shashikala.K, Dr. Sharmila.P.S, Dr. ShwethaJaykar.S, Dr. Jyothi A Raj, Dr. V.Mahanthachar, Dr. T.Rajaram, Dr. UshaRamchandra.
- Morphological spectrum of lesions in the sinonasal region; Jyothi A Raj, Sharmila PS, Mahantachar V, Mitika S, T Rajaram.
- Spectrum of neoplastic and non- neoplastic lesions in the fallopian tube in a tertiary care hospital. - Dr. Nikita Valerina Khairanna.
- Etiopathological study of anaemias in women of reproductive age group and in selected cases, hemoglobin electrophoresis, among patients in teaching hospital during the period 1/6/2011 to 31/12/2012- Dr. Mitika Srivastava
- Histomorphological spectrum of neoplasms in the nasal cavity and paranasal sinuses in a tertiary care hospital. Dr.Sharmila PS, Dr.Jyothi A Raj, Dr.Mitika S.
- Sudden cardiac deaths in young adults. Dr.Anand R, Dr.Pradeep Kumar M V, Dr.Rajaram T, Dr Mahantachar V



List of Undergraduate student research projects 2013

1. Prevalance of anemia in adolescent school-going girls, with correlation of red cell morphology and indices.

Investigators: SanjanaPrabhu P*, Sangeetha Balaji*, Akshay S**, Helen Jeydevi A**, Dr. Jyothi A Raj***, Dr. Sharmila PS***.

*Fifth term, Dept. of Pathology

**Fourth term, UG students, Dept. of Pathology

***Faculty, Dept. of Pathology



CONFERENCES / WORKSHOPS CONDUCTED BY THE DEPARTMENT

- CME Programme organized by Blood Bank – Department of Pathology RRMCH – 8/10/2009.
- Participation as delegate in CME on changing trends with the newer concepts in fields of Pathology, Pharmacology, Biochemistry and General Medicine Post Graduate lecture series – RGUHS in associate with RRMCH. 8th to 10th Dec 2011.
- Academy of Pathology , Annual Meeting, 18th Nov 2012
- Participation as delegate in CME on Organ Transplantation RRMCH & IMSA Bangalore, Aug 2011.
- IMA Conference RRMCH Bangalore, Dec2011
Orientation Programme on NABH Accreditation RGUHS Bangalore, Nov 2011.
- Workshop on Educational Science & Technology for Medical Teachers MEU, RRMCH Bangalore, Jun 2012.
- IMSA ,southern region ,Conference RRMCH Bangalore, Oct 2012.
- Under graduate Pathology Quiz for Medical colleges of RGUHS - KCIAPM, at RRMCH on 12th October 2010
- IMSAConference at RRMCH&H held in 5th&6th Oct 2013



University Appointments & membership of other associations

Participation / contribution of teachers to the academic activities of RGUHS :

Dr Usha Ramachandra ,Member
Academic Council

Professional Association :Academy of
Pathology, Bangalore.

All faculty are members.



Annual conference of Academy of Pathology – 2012



State Level Pathology Quiz Competition 2010







Awards

- The students of our college won the third prize in the State Level Pathology Quiz in 2009.







Innovative practices

Students

- Integrated teaching
- Problem based learning
- CPA cards
- Mentorship

Staff

- Medical education training
- Attending national and international conference
- Encouraged to use newer methods of teaching learning process
- Internet and HELINET facilities
- Research projects

Work front

- Quick and accurate reporting
- Quality control



Future Plans

- ❖ To set up well equipped automated and networked computerized Laboratory
- ❖ Organizing State and National conference of KCIAPM and APCON respectively.
- ❖ Addition of new and advanced equipment for research.



SWOT ANALYSIS

Strengths

- Enthusiastic, intelligent ,highly motivated undergraduate and postgraduate medical students
- Abundant clinical material at the hospital
- Availability of ultra modern automated laboratory equipment, infrastructure , manpower
- Experienced faculty to guide
- Internet and Wi-Fi network facility in college and hospital premises
- Smart demonstration rooms and lecture hall
- Periodical seminar, tutorials, journal clubs, enrichment courses problem based learning, internal assessment examination.
- Well established museum , display charts and histopathological slides collection.
- Digital library with good number of reference books and journals
- Well established Blood bank services
- Institutional Credibility



Weakness

- No major weakness for carrying out the tasks assigned.
- As and when the problem arises, the concerned authorities take necessary action to solve it.

Opportunities

- Vast amount of clinical material , Infrastructure and other human resources available in our medical college.
- Promotional schemes by the government directed towards involvement of medical colleges in health care research to involve the department of our medical in operational research in national health programmes.
- Financial support by the government for up-gradation of equipment and infrastructure for motivating the faculty
- Financial aid as an incentive to motivated enthusiastic young researchers in our medical college
- Credibility of our institution to attract research
- Institutional review board (IRB) to oversee research methodology guidelines by young researchers



Threats

- Increased turnover of young medical graduates after obtaining their degree due to inability to retain the talent in the parent institutions.
- There exists no performance based promotional or other incentives to those engaged in research
- There is no career ladder available in medical colleges for those who are devoted for research

Future Plan

	2014-15	2015-16	2016-17	2017-18	2018-2019
Courses	Enrichment Courses	Problem Based Learning	GIVE DEMO IN Preconference Workshop	Increase Seats To 250	New Paramedical
TLE	All Teaching Ppt Student Centric , Train For Viva-Voce, Faculty Development Activities All faculties avail membership of national professional association Increase quality and quantity results	Use Net For Teaching Cpa Card Intensify, Atted Cinfrence With Paper All Faculty Weekly Scienctific Club Conduct 2- Workshops Complete annual review Increase quality and quantity o results	Live Lectures Relay Student Projects ,Tutorials,Group Discussion. Hands On Expirience, Pbl,Enrichment,Pr ove Improve Teacher Quality By Advance Skills Atted Cinfrence With Paper All Faculty Conduct-National Conference Conduct2- Workshops Complete annual review Increase quality and quantity o results	TTtrain For Mcq, PPbl,Enrichment,Pr ove IImprove Teacher Quality By Advance Skills CCconduct 2- Workshops lincrease quality and quantity o results	Student And Faculty Exchange Atted Cinfrence With Paper All Faculty Conduct 2- Workshops Faculty Development Activitie Increase quality and quantity o results

Future Plan

Administrati on	Four Coordinator s Committees Of IQAC	Internalise IQAC ,Develop IQAR,PPD	Internalise IQAC ,Develop IQAR,PPD		
Research/ Extension	Complete Annual Review Present Papers At National Conference Of Faculty Research Topics	Complete Annual Review Present Papers At National Conference Of Faculty Research Topics Publish Articles In College Journal	Complete Annual Review Present Papers At National Conference Of Faculty Research Topics Publish Articles In College Journal Publish Articles In College Journal	Complete Annual Review Present Papers At National Conference Of Faculty Research Topics Publish Articles In College Journal	Complete Annual Review Present Papers At National Conference Of Faculty Research Topics Publish Articles In College Journal

Future Plan

Infrastructures	<p>Improve library quality 55-points</p> <p>Improve LABOROTARIES</p> <p>GET EQUIPMENTS</p> <p>Get advanced research equipments</p> <p>Maintain and strengthen ICT – facilities and utilisation</p>	<p>Improve library quality 55-points</p> <p>Upgrade Laborotaries</p> <p>Calibration of equipments</p> <p>TRAIN IN advanced research equipments</p>	<p>Improve library quality 55-points</p> <p>Maintain and assess space for ug , pg, paramedical students and faculties</p> <p>Calibration of equipments</p> <p>use advanced research equipments for teaching learning</p> <p>Maintain and strengthen ICT –facilities and utilisation</p>	<p>Improve library quality 55-p</p> <p>Calibration of equipments oints</p> <p>Maintain and strengthen ICT – facilities and utilisation</p>	<p>Improve library quality 55-points</p> <p>Calibration of equipments</p> <p>Maintain and strengthen ICT –facilities and utilization</p> <p>Add on teaching aids</p>
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Future Plan

Innovation	Add on services Establish centre of excellence in	Provide advances in technology in education ,service and research	Get international linkage-for research ,and teaching learning process	Establish centre of excellence in
Collaborations/ Linkages	Get international linkage-for research ,and teaching learning process	Linkages with villages for services	Linkages with ngo for services and to procure research grants	Participate in national health services schemes

Thank You

