DEPARTMENT OF PATHOLOGY

Introduction

B.P. Koirala Memorial Cancer Hospital was initially started as a Day Care Centre, which was formally inaugurated on 11 october 1995. At that time pathology service was started with routine laboratory tests, FNAC and Bone marrow aspiration and examination. Similarly indoor service was started on 20 July 1999. Thereafter pathology service was expanded. Now we have own separate building for department of pathology.

Department of Pathology deals with the responsibilities to provide final diagnosis, assessment of different prognostic factor, supportive services during treatment and help to assess if there are recurrences or persistence of disease during follow up. It also plays vital role in research activities.



Services

Pathology Department has different units for smooth running of different type of tests. We have recently incorporated newer tests including Immunohistochemistry and CD markers tests to differentiate different types of Leukaemia and Lymphoma cases.

1. Histopathology Unit

Minor and major biopsies along with endoscopic biopsies for histopathological examination and final diagnosis. Special stains including Periodic Acid Schiff (PAS), Masson Trichome(MT) and Alcian Blue along with immunohistichemistry (supported by the Oslo University Hospital, Oslo) are also performed. Frozen section facility for immediate diagnosis and assessment of the patient at the time of operation is also available.

2. Cytopathology Unit

Fine Needle Aspiration Cytology (FNAC) along with U.S.G.guided or CT guided FNAC, Exfoliative Cytology (pap smear cytology, bronchial brush cytology etc) and Body fluid cytology (pleural and peritoneal) tests are also daily available.

3. Hematology Unit

Routine tests including Blood Haemogram, Total Leukocytes Count (TLC), Differential Leukocytes Count (DLC), Peripheral Blood Smear (PBS), Bone Marrow aspiration and examination for diagnosis of haemopoetic abnormalities, which are assessment of Leukemia and Lymphoma. Special stains for diagnosis and differentiation of leukemia supported by Myeloperoxidase (MPO) and Periodic Acid Schiff(PAS) stains.

4. Microbiology Unit

Routine culture and sensitivity, routine serological tests including tests for Hepatitis B,C and HIV,VDRL, backed up by Automatic ELISA reader. Stool R/E, Urine R/E and other related tests.

5. Bio-chemistry Unit

Fully automatic biochemical analyzer (Dimension RxL, Dade Behring USA) is being used to carry out routine biochemical tests like Liver Function Test (LFT), Renal Function Test (RFT) and other special investigations. The machine is capable of performing 600 tests per hour.

6. Blood Bank Unit

Pathology Department has its own separate Blood Bank Unit . Which was established on 3rd July ,2008 in coordination with Nepal Red Cross Society. Its 1st Jan. 2010 to 31st Dec. Total Cross Match test- 6057



7. Immunoserology Unit

Fully automated Minividas Equipment is being used to perform different type of tumour marker tests for diagnostic as well as prognostic purpose.

8. Immunohistochemistry Unit

Immunohistochemistry test was started on 16 December 2009. We are rountinely performing 17 panel of immunohistochemistry tests including ER, PR and HER2.

9. Flowcytometry Unit

Flowcytometry test was started from January 1st 2010. we have four colour BD FACS calibre equipment, which is highly sensitive and specific for accurate diagnosis of leukaemia and lymphoma cases. Our Institute has been pioneer in Nepal to start different types of CD markers tests for diagnosis of leukaemia and lymphoma cases.

Annual Activities											
Units	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Haematology	39,047	44,729	49,363	48750	58508	69246	79427	76691	97439	104217	116272
Bio-Chemistry	30,450	31,595	34,965	38176	40322	56589	67175	79082	95027	117013	123039
Microbiology	2,782	3,877	4433	4924	5982	7918	7519	8111	12854	9999	12348
Cytology	5,991	5,726	5,795	5519	7305	8164	8218	10184	7948	10369	7237
Histopathology	2,846	3,277	4,277	4803	5342	5648	5611	6180	6389	5076	6075
Immunoserology (Tumor marker)											5558
Flowcytometry											48

10. Emergency Laboratory Unit

We are running 24 hours emergency services for needy patients admitted in the wards and observation unit for different types of haematological, clinical pathological and biochemical tests.

Future Plan

The department is in process of incorporating tests like Chromosomal Analysis and Biobanking System for research.

Academic Activities

We have actively taken part in teaching, presentations/cancer orientation courses to Paramedics, Staff Nurses, Senior Nurses and MN Students, as well as regular academic activities for Certificate Level Students in Medical Laboratory Technology, Bachler Level Students in Medical Laboratory Technology, and MD Pathology Residents from NAMS, Kathmandu.

Regular consultation is being done with professors (in the department of pathology, the Oslo University Hospital, Montebello, Oslo, Norway) along with immunohistochemical and other investigations whenever needs arise.

Human Resources

At present, One senior Consultant, Two Consultants, Two Junior Consultants, Three Registrar, One Senior Technologist, Nine Technologists, Two Senior Technicians, Thirteen Technicians, Two Lab assistants, One Lab Helper, Two junior Assistants, Four Attendants are providing the services.

