



NPTEL- DTH Swayamprabha Video Lectures in Pathology

Technology, Text and Talk – the three T’s undergird any lecture today. The Pathology lectures have attempted to provide a balance of these three components. Concepts rather than content have been the cornerstone of each of these presentations. The approach of each teacher is unique and to give a lecture in a studio, without the students in the classroom was both a challenge and an opportunity; it has been a learning experience for all the faculty members who have spared no effort to share their knowledge for the benefit of the learners.

Prof. Dr. K. Ramnarayan

National Coordinator

NPTEL PATHOLOGY- Health Sciences

PHASE I

1.1. PATHOLOGY

1.1.1. CELLULAR RESPONSES TO INJURY

1	1.1	What is Pathology?	00:34:46	Dr. Annamma Kurien/ Dr. K. Ramnarayan
2	1.2	Cellular Adaptation – Adapt to survive	00:30:55	
3	1.3	Differentiation and altered differentiation	00:27:39	
4	1.4	Necrosis	00:26:00	
5	1.5	Apoptosis	00:17:09	
6	1.6	Intracellular accumulations	00:23:58	

1.1.2. ACUTE & CHRONIC INFLAMMATION

7	2.1	Inflammation 1	00:20:32	Dr. Kanthilatha Pai/ Dr. K. Ramnarayan
8	2.2	Inflammation 2	00:24:23	
9	2.3	Inflammation 3	00:28:32	
10	2.4	Chemical mediators- Cell derived	00:18:54	
11	2.5	Chemical mediators- Plasma protein derived		
12	2.6	Patterns of acute inflammation	00:20:26	
13	2.7	Granulomatous inflammation		



1.1.3. WOUND HEALING

14	3.1	Cell cycle	00:14:57	Dr. Sharada Rai
15	3.2	Wound healing- Primary & Secondary	00:29:23	
16	3.3	Factors affecting wound healing & common complications	00:17:24	
17	3.4	Fracture healing	00:15:12	

1.1.4. CIRCULATORY DISTURBANCES

18	4.1	Edema	00:13:26	Dr. Hema Kini
19	4.2	Hyperemia & Congestion	00:19:33	
20	4.3	Embolism- I & II	00:23:06 00:24:07	
21	4.4	Infarction	00:18:53	
22	4.5	Shock	00:18:41	

1.1.5. GENETICS

23	5.1	Prenatal diagnosis of genetic conditions	00:27:40	Dr. Girisha. K. M.
24	5.2	Genetic counselling & patterns of inheritance	00:30:53 00:34:47	
25	5.3	Genetic testing/Genetic basis of cancer & familial cancers/Approach to a dysmorphic child	00:28:59	

1.1.6. IMMUNOLOGY

26	6.1	Diseases of the immune system	00:21:35	Dr. Deepak Nayak M
27	6.2	Hypersensitivity Reactions	00:27:19	
28	6.3	Autoimmunity	00:20:38	
29	6.4	Systemic Lupus Erythematosus (SLE)	00:26:37	
30	6.5	Rejections of tissue transplants	00:19:27	
31	6.6	Immunodeficiency	00:25:11	
32	6.7	HIV & AIDS		
33	6.8	Amyloidosis	00:21:04	



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1.1.7. INFECTIOUS DISEASES

34	7.1	Tuberculosis-1	00:22:48	Dr. Sharada Rai
35	7.2	Tuberculosis-2		
36	7.3	Leprosy	00:09:40	

1.1.8. NEOPLASIA

37	8.1	Properties of cancers	00:26:40	Dr. Anuradha Ananthamurthy
38	8.2	Cancer epidemiology	00:22:52	
39	8.3	Cancer genes	00:29:21	
40	8.4	Hallmarks of cancer	00:20:03	
41	8.5	Tumor suppressor genes, viral oncogenesis	00:24:59	
42	8.6	Sustained angiogenesis, invasion and metastasis	00:15:30	
43	8.7	Tumor immunity, genomic instability and cancer	00:15:48	
44	8.8	Clinical aspects of neoplasia	00:26:49	

1.1.9. METABOLIC DISEASES

45	9.1	Diabetes Mellitus 1	00:22:32	Dr. Deepak Nayak
46	9.2	Diabetes Mellitus 2- Clinical features	00:25:42	



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PHASE II

S.no	Topic	Duration	SME	Designation	Institute
1	Moocs (Renal System) Nephrotic Syndrome in children	1: 13: 19	Dr. Aditi Singh	Pediatric Nephrologist	AIIMS, New Delhi
2	Hematuria	00:12: 07	Dr. Anil Goyal	SR consultant Urologist	GHUC, DMRC, New Delhi
3	Urine Examination (Physical & Chemical)	00:18: 21	Dr. Geetika Singh	Assistant Professor, Department of Pathology	AIIMS, New Delhi
4	Interstitial Nephritis	00:23: 22			
5	Pyelonephritis, obstructive / reflux nephropathy and Urolithiasis	00:24: 16			
6	Renal Tumors	00:23: 34			
7	Renal cell carcinoma	00:09: 47			
8	Anatomy and Physiology of Urinary System	00:58: 38	Dr. Neha Kawatra Madan	Assistant Professor	AIIMS, New Delhi
9	Acute Renal Failure (Acute kidney injury)	00:51: 57	Dr. Soumita Bagchi	Department of Nephrology	AIIMS, New Delhi
10	Urinary System Introduction & General Consideration	00:48: 29	Prof. Amit Kumar Dinda	Professor of Pathology	AIIMS, New Delhi
11	Glomerulonephritis: Pathology	00:55: 27			
12	Glomerular involvement in systemic diseases	00:26: 41			
13	Acute Renal Failure (ARF)	00:16: 27	Prof. Amlash Seth	Department of Urology	AIIMS, New Delhi
14	Renal Tumors	00:35: 06			



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RESPIRATION SYSTEM

S.no	Topic	Duration	SME
1	Introduction of Respiratory System	0:33:48	Dr. Sudheer Kumar Arava Additional Prof., Dept of Pathology, AIIMS, New Delhi
2	Respiratory Defence Mechanisms	0:15:28	
3	Lung Infections - I	0:33:08	
4	Lung Infections - II	0:32:16	
5	Lung Infections - III	0:30:19	
6	Respiratory Atelectasis	0:26:11	
7	Pulmonary Edema	0:30:01	
8	Acute Lung Injury	0:33:50	
9	Chronic noninfectious diffuse pulmonary diseases	0:46:35	
10	Chronical Bronchitis	0:38:28	
11	Bronchiectasis	0:42:23	