



Histopathological Evaluation of Lung Autopsy: 100 Cases Study

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Abstract

Background: Autopsy histopathology is useful in cases of undiagnosed cases or suspected cases to confirm the diagnosis in routine and medicolegal cases. There is involvement of lung in various infectious and tumour conditions along with end events of cardiovascular events.

Objective: The present study was done to find spectrum of lung lesions by histopathological examination of lung autopsy tissues.

Material and Methods: The present study was conducted in the Department of Pathology, M.G.M. Medical College Indore, from January 2016 to December 2017. Total 100 cases were studied. The diagnosis in all the cases were made on Hematoxylin and Eosin stained slides of processed tissue.

Results: Among the 100 cases, 37% shows congestion, 17% shows pneumonia, 38% shows nonspecific inflammation, 4% cases show tuberculosis, 1% shows emphysema, 3% shows normal finding. Among all cases 80 were males and 20 were females.

Conclusion: Histopathology examination of autopsy lung tissue is useful for evaluation of underlying lung pathology. The common finds were congestion, nonspecific inflammation and Pneumonia.

Keywords: Autopsy, Histopathology, Pneumonia.

Introduction

Autopsy histopathology is useful in cases of undiagnosed cases or suspected cases to confirm the diagnosis in routine and medicolegal cases. The role of pathologist is to study the disease process which led to death and to establish the cause of death.^[1] There is involvement of lung in various infectious and tumour conditions along with end events of cardiovascular causes.^[2] Air pollutants, chemical substances and COPD cases are increased.^[3]

Material and Methods

This is a retrospective study conducted on 100 cases during the period of 2 years months from January 2016 to December 2017 in the department of Pathology at M.Y. Hospital, Indore. The lungs were fixed in 10% formalin. The gross examination of lung done and tissue sections for histopathology taken. After tissue processing, H & E stain used for staining.

Results

The present study includes 100 lung autopsy cases, out of which 37% shows congestion, 17% shows pneumonia, 38% shows nonspecific inflammation, 4% cases show tuberculosis, 1% shows emphysema, 3% shows normal finding.

Table 1 shows gender wise distribution and table 2 shows age wise distribution of lung lesions.

Table 1: Gender-wise distribution of cases

	Male	Female
Pneumonia	14	3
Congestion & edema	31	6
Nonspecific Inflammation	28	10
Tuberculosis	3	1
Emphysema	1	0
Normal	3	0

Table 2: Age-wise distribution of cases

Age (in yrs)	< 10 yrs	11 – 20 yrs	21 – 30 yrs	31 – 40 yrs	41 – 50 yrs	51 – 60 yrs	> 60 yrs
Pneumonia	1	2	2	7	2	3	0
Congestion & edema	1	1	8	6	6	12	3
Nonspecific Inflammation	3	6	7	3	10	6	3
Tuberculosis	0	0	1	2	0	0	1
Emphysema	0	0	0	0	0	0	1
Normal	0	0	2	1	0	0	0

Discussion

The results of the study showed that Congestion and edema in 37% cases, this is comparable to the study by Selvambigai G et al^[4] which showed congestion in 28% cases. Pneumonia is seen in 17% cases, this is comparable to the study by Chauhan G et al^[5], Selvam V et al^[3], and Fang et al^[6], which showed pneumonia in 15%, 10.1% and 15% cases respectively.

In our study 4% cases were of tuberculosis, this is comparable with Chauhan G et al^[5] which showed tuberculosis in 6.26% cases.

Conclusion

The common finds were congestion, nonspecific inflammation and Pneumonia. Histopathology examination of autopsy lung tissue is useful for evaluation of underlying lung pathology.

Among the 17% cases of Pneumonia, out of which 14% were males and 3% were females. Majority cases (7% cases) were in 4th decade of life. Among the 37 (37% cases) cases of congestion and edema 31 (31% cases) cases were males and 6 (6% cases) cases were females.

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