

Incidental Findings in Autopsy Examination of Liver - A One Year Retrospective Study

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ABSTRACT

Background: Liver is the site of various diseases, many of which become symptomatic while some are diagnosed only on autopsy examination.

Aim of the study: To determine the prevalence and spectrum of various silent liver diseases in autopsy examination and to correlate it with age and sex.

Methods: The study was conducted in the department of Pathology, Government Medical College, Jammu over a period of 1 year. Liver specimens were collected from 120 cases as a part of examination of multiple viscera. Sections from representative area were submitted for processing, sectioned and stained with Hematoxylin and Eosin stain.

Results: Out of 120 specimens, 41 (34.2%) showed fatty change, followed by Chronic venous congestion 22 (18.3%) cases, steatohepatitis 11 (9.2%) cases, liver necrosis 2 (1.7%) cases and tuberculosis 1 (0.8%) case. 39 (32.5%) cases were normal and 4 (3.3%) cases were autolysed 2 (3%) cases. Maximum numbers of cases were seen in the age group 31-45 years. Liver diseases predominated in males with male: female ratio of 3:1.

Conclusion: Silent diseases of the liver are not uncommon. Autopsy is an important method for the pathologist to study the histopathological spectrum of silent liver diseases and to study the in situ process as well as incidental findings.

Keywords: Liver autopsy, Fatty change, Liver disease.

INTRODUCTION

Liver is vulnerable to a wide variety of metabolic, toxic, microbial and circulatory insults. In some instances, the disease is primary while in others the liver involvement is secondary to cardiac decompensation, alcoholism or extra-hepatic infections. Quite rightly liver is, called as "The custodian of milieu interior" Autopsy study is very helpful to monitor the cause of death and to plan medical strategy. [1]

Most of the chronic liver diseases, even in advanced stages, may cause no prominent clinical signs or symptoms. They

may either go undiagnosed or are found incidentally during general health check-ups, investigations for other diseases, surgery, or at autopsy. The underlying causes of chronic liver diseases differ indifferent geographic areas and are based on various factors such as socioeconomic status, life style, diet, local or regional infections, and other endemic diseases. [2]

Abnormal findings in liver autopsy can be fatty change, hepar lobatum, glycogen storage disease, acute phosphorus poisoning, hemosiderosis, syphilis, actinomycosis, infarcts, cloudy swelling, tuberculosis, acute passive hyperemia,

chronic passive hyperemia, amyloidosis, abscess, hydatid cyst, malignancy, cirrhosis and acute yellow atrophy. [3] These diseases can be seen as “silent liver disease” in the histological findings during autopsy. Alcohol abuse generally leads to three pathologically distinct liver diseases; these are fatty liver, hepatitis and alcoholic cirrhosis. [4]

MATERIALS AND METHODS

A total of 120 Liver specimens received as a part of examination of multiple viscera, over a period of one year from January 2018 to December 2018 in the department of pathology, Government Medical College, Jammu were examined both grossly and microscopically. Sections from representative area were taken and submitted for processing. After processing tissues were sectioned and stained with H&E stain.

Different pathological findings of all cases were analyzed and expressed as frequencies and percentage.

RESULTS

The study was conducted in the department of pathology in which 120 liver autopsies were studied. The pathological lesions were noted in 77 cases while 39 cases were within normal histological limits and 4 cases were autolyzed. Among the lesions 89(74.2%) were males and 31(25.8) were females.

Table 1 shows Histopathological findings and their frequencies

HISTOPATHOLOGY	NUMBER OF CASES	PERCENTAGE
Fatty change	41	34.2
Chronic Venous Congestion	22	18.3
Steatohepatitis	11	9.2
Liver Necrosis	2	1.7
Tuberculosis	1	0.8
Autolyzed	4	3.3
Normal	39	32.5
Total	120	100

Table 2 shows sex wise distribution of cases

HISTOPATHOLOGY	MALE (%)	FEMALE (%)	TOTAL (%)
Fatty change	35(29.2)	6(5)	41(34.2)
Chronic Venous Congestion	12(10)	10(8.3)	22(18.3)
Steatohepatitis	7(5.8)	4(3.3)	11(9.2)
Liver Necrosis	1(0.8)	1(0.8)	2(1.7)
Tuberculosis	1(0.8)		1(0.8)
Autolyzed	4(3.3)		4(3.3)
Normal	29(24.2)	10(8.3)	39(32.5)
Total	84(74.2)	31(25.8)	120(100)

Table 3 shows Age wise distribution of cases

Lesion	0-15 yrs	16-30 yrs	31-45 yrs	46-60 yrs	>60 yrs	Total
Fatty change		7(5.8)	16(13.3)	16(13.3)	2(1.7)	41(34.2%)
Chronic Venous Congestion		6(5.0)	8(6.6)	5(4.2)	3(2.5)	22(18.3%)
Steatohepatitis		2(1.7)	4(3.3)	3(2.5)	2(1.7)	11(9.2%)
Liver Necrosis			2(1.7)			2(1.7%)
Tuberculosis			1(0.8)			1(0.8%)
Autolyzed		1(0.8)	1(0.8)	2(1.7)		4(3.3%)
Normal	3(2.5)	12(10.0)	16(13.3)	8(6.6)		39(32.5%)
Total	3(2.5)	28(23.3)	48(40.0)	34(28.3)	7(5.9)	120(100%)

DISCUSSION

In the present study liver diseases predominates in males (74.2%) which is comparable to findings of Bal MS et al (83%) and Sotoudehmanesh R et al (86.7%). It may be due to the fact that men are more prone to alcohol consumption.

The present study showed that the most common liver disease was fatty change (34.2%) which was similar to studies by Bal MS et al (39%) and Selvi RT et al (26.9%). [5,7] Moreover fatty change was more pronounced in males (29.2%) than in females(5.0%). Regular intake of alcohol

between 40-80 grams increases the liver weight and frequency of fatty changes in liver.

The second most common cause of liver disease was chronic venous congestion seen in 22(18.3%) cases which was also the second most common cause (31.3%) in a study by Sameer MA et al. [8]

In our study steatohepatitis was seen in 11(9.2%) cases. Thamil SR et al reported 13.9% of cases having hepatitis, [9] while in a study of Bal MS et al hepatitis was found in 3% cases. [5]

In the study, there were 2(1.7%) cases of liver necrosis. Only 1(0.8%) case showed tuberculosis. Soutoudehmanesh R et al observed granulomatous hepatitis in only 0.2% [2] which was comparable to our study and 2% cases of hepatic granulomatous lesions were seen in a study by Devi Ph. M et al. [10] Liver is a common site of granuloma formation owing to its rich blood supply. Primary hepatic tuberculosis is rare because low oxygen tension in liver is unfavourable for growth of mycobacteria as per Zheng Wu et al. [11]

The study also included 39(32.5%) normal liver specimen and 4(3.3%) autolysed specimen.

In the present study maximum number of cases were seen in the age group 31-45 years (40%) which was similar to studies conducted by Bal MS et al (53.85%) and Fubra DS et al (28%). [5,6]

CONCLUSION

Autopsy is an important method for the pathologist to study the histopathological spectrum of silent liver diseases like fatty change, chronic venous congestion, steatohepatitis and tuberculosis and also it is very helpful to study the in situ process as well as incidental findings.

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