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Original Research Article

Study of Liver Pathology in Autopsy Cases

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ABSTRACT

Liver is the site of many diseases, many of which become symptomatic while some are diagnosed only on autopsy. A wide spectrum of primary as well as secondary diseases can affect the liver. Involvement of liver is secondary to cardiac, metabolic and social problems like alcoholism. The aim of the study was to study spectrum of histopathological lesions encountered in liver autopsy. In this autopsy study of 150 cases of liver specimens, fatty change, chronic venous congestion, portal triaditis and cirrhosis were the main findings and metastasis to liver was reported in two cases.

Key Words: Liver pathology, autopsy.

INTRODUCTION

The Main Purpose of Autopsy is to know the exact cause of death. Thus autopsy study provides valuable information about the disease. Liver being the principle site of many metabolic activities, it is vulnerable to many metabolic, toxic, microbial and circulatory insults and is the most frequently injured organ in the body. It is also frequently involved in the metastatic spread of primary malignancies of other organs e.g. gastrointestinal tract. The major diseases include hepatitis, alcoholic liver disease, circulatory disturbances and neoplasm. The main purpose of the study was to analyse different patterns of liver diseases that are reflected in the morphology of liver at autopsy to study the clinicopathological correlations in various hepatic lesions.

MATERIALS AND METHODS

In this study, One hundred fifty specimens of liver of the deceased 20-60 years of age received in the Department Of Pathology, Government Medical College, Vishnupuri Nanded were examined grossly as well as microscopically. Liver specimens were received either as a part of examination of multiple viscera or only liver was taken out during autopsy for examination. After fixation in 10% formalin, paraffin blocks were made. Sections were cut and were stained with H & E. In each case, important information regarding age, sex, clinical findings, suspected cause of death and post mortem findings were obtained from post mortem papers.

RESULTS

Histopathological Diagnosis	No Of Cases (Total cases=150)
Normal	43 (28.66%)
Circulatory Disorders (CVC/ Acute Sinusoidal Congestion)	47 (31.33%)
Fatty Liver	30 (20%)
Steatohepatitis	17 (11.33%)
Cirrhosis	11 (7.33%)
Malignancy (Metastasis)	2 (1.33%)

Histopathological Diagnosis With Relation To Sex

Diagnosis	Male	Female	Total Cases
Normal	23	20	43
Circulatory Disorders (CVC/ Acute Sinusoidal Congestion)	25	22	47
Fatty Liver	22	08	30
Steatohepatitis	11	06	17
Cirrhosis	11	00	11
Malignancy (Metastasis)	01	01	2

Cases Of Fatty Change

Age (years)	Male (cases-22)	Female(cases-08)	Total(cases-30)	%
51-60	11	05	16	53.33%
41-50	07	02	09	30%
31-40	03	01	04	13.33%
21-30	-	-	-	-

Cases Of Cirrhosis

age (years)	Male(cases-11)	Female(cases -00)	Total(cases-11)	%
51-60	06	-	06	54.54%
41-50	04	-	04	36.36%
31-40	01	-	01	9.09%
21-30	-	-	-	-

FIG 1: grossly enlarged pale liver

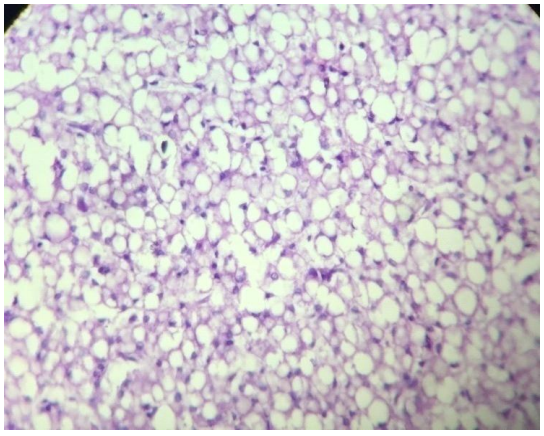


FIG 2: Fatty Liver (H&E Stain):- distension of hepatocytes showing vacuolated cytoplasm and eccentric nucleus

FIG 3: grossly enlarged congested liver

DISCUSSION

Histopathological study is an important value in improving the knowledge and diagnostic setup for clinical assessment. In this study, incidences were found higher in 4^{th} and 6^{th} decades of life. Of 150 cases, 93 males (62%) and 57 females (38%) were found to be affected. Men were more prone to death by diseases as compared to women the reason being men were beard earners as compared to women which makes them prone to alcohol consumption.

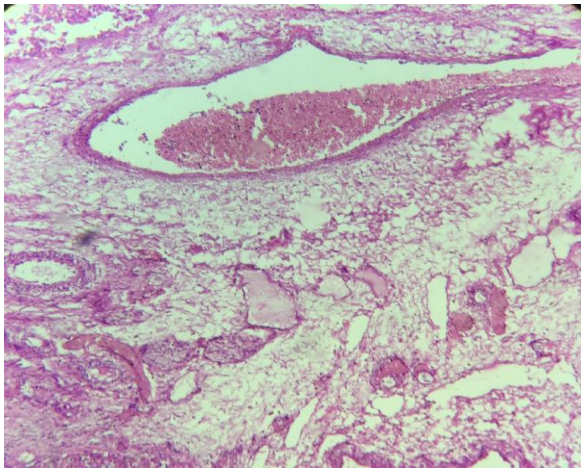
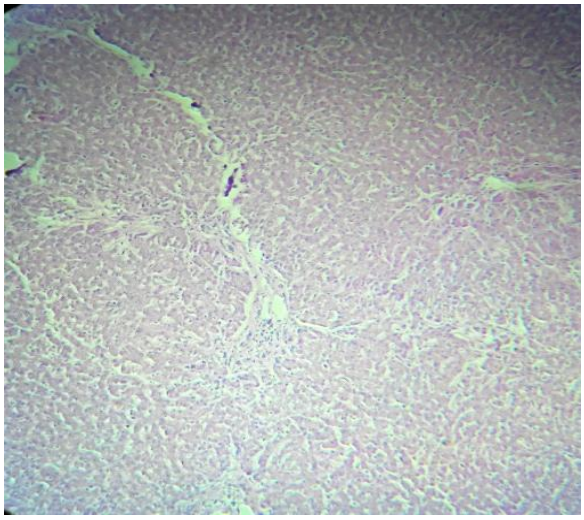


FIG 4: Congestion of Liver (H&E Stain):- areas of congestion and hemorrhage with periportal necrosis

FIG 5:- Liver Showing Areas Of Congestion And Micronodules



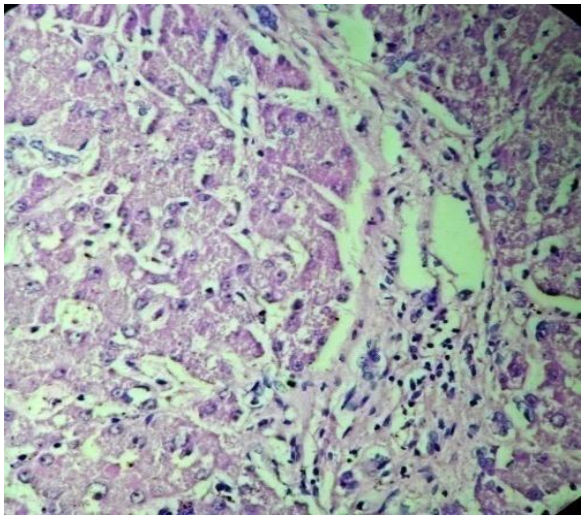


FIG 6: CIRRHOSIS (H&E Stain):- Formation of micronodules separated by thick fibrous sepate

FIG 7: Externally Showing Presence Of Necrosis And Tiny Nodules (Metastasis)

Alcohol consumption is found to be one of important risk factors for liver diseases. Also men indulge themselves in alcoholism, smoking etc. Mainly people from lower and middle class tend to fall in this category.

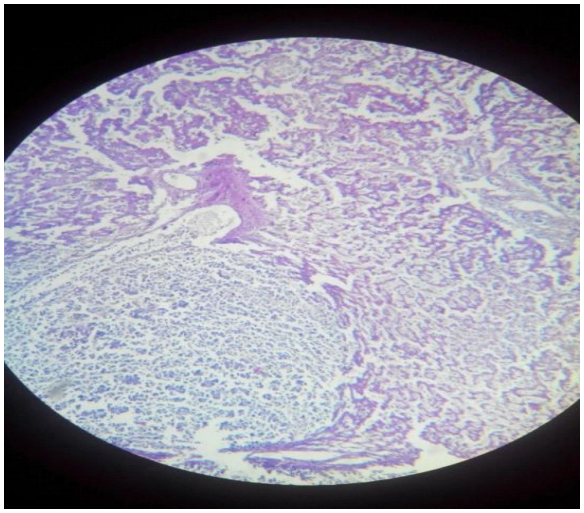
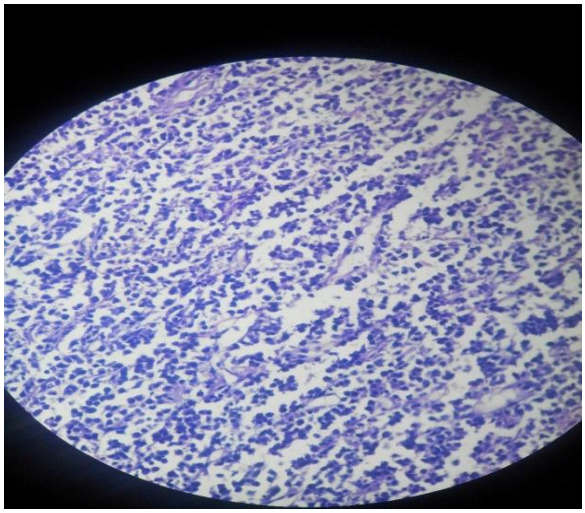



FIG 8: (H&E Stain) Metastasis to liver from primary in intestine (Non Hodgkin's lymphoma)- section shows uniform small hyperchromatic nuclei in sheets

FIG 9: Externally liver shows nodules of metastasis

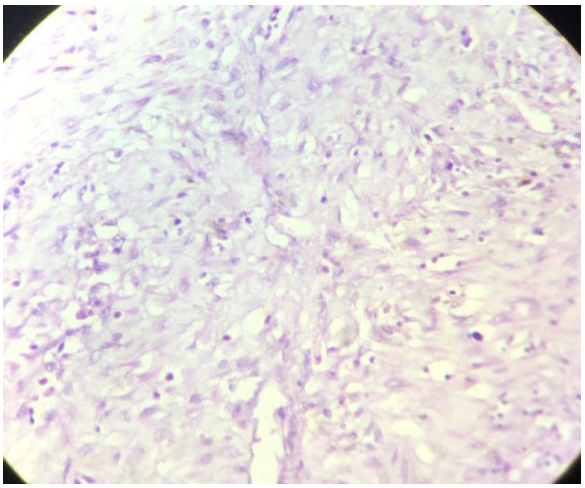


FIG 11: Metastasis to Liver from Primary Adenocarcinoma of Gall Bladder
High Power View Showing Poorly Differentiated Adenocarcinoma

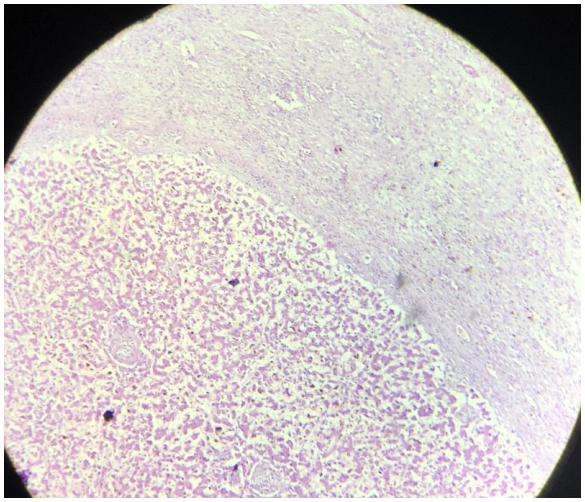


FIG 10: (H&E Stain) Metastasis To Liver From Primary Adenocarcinoma Of Gall Bladder
Low Power View Showing Normal Area Of Liver Below Separated From Tumor Tissue Above

Regular intake of alcohol between 40-80 gms increases the liver weight and frequency of fatty change in liver. Microscopic findings revealed Circulatory Disturbance (Chronic Venous Congestion) (31.33%) as the most common finding followed by normal findings and fatty liver. Fatty liver might be the most common silent liver disease among general population in Tehran, Iran. [(1)] There are two studies that show hepatitis was predominant in Japan and other Asian countries. [(2)] Studies have been reported that have seen cases had developed significant fibrosis, cirrhosis and hepatocellular carcinoma and viral hepatitis is most common cause of cirrhosis in Iran. [(3)] There is 200 fold increased risk for

hepatocellular carcinoma by adulthood [(4)] and molecular origin of hepatocellular carcinoma remains unclear. [(5)]

Most of the cases that were reported in our hospital were due to Road traffic accidents. Also autopsies were being performed in suspected cases of poisoning, burns, drowning etc. Autopsy is a magnificent learning tool in the hands of pathologists to study the histopathological spectrum of diseases which help to study the in situ process as well as rare incidental findings. In the present study wide variety of liver diseases were seen, circulatory disturbance (31.33%) being the most common finding followed by normal findings (28.66%), fatty change (20%), hepatitis (11.33%), cirrhosis (7.33%) and malignancy (metastasis -1.33%).

CONCLUSION

From this study most common findings were Chronic Venous Congestion followed by normal findings and Fatty change more common in the age group of 40-60 years. The incidence of liver diseases is more common in males as compared to females.

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