



Pathology Biology Section - 2012

G42 The Prevalence of Hepatitis Among the Forensic Autopsy Population of the South Alabama Region

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The goal of this presentation is for attendees to become familiar with the prevalence of hepatitis among the forensic autopsy adult population of the South Alabama region in a cross section study.

This presentation will impact the forensic science community by determining the estimated prevalence of hepatitis among the forensic autopsy adult population in the South Alabama region.

From 887 cases investigated by the Alabama Department of Forensic Sciences (ADFS) during the calendar year 2003, demographic information was obtained and all adult cases that had had a postmortem examination were included in the study. Of the 887 cases, 775 had an autopsy and of these 711 were over 18 years of age. From the 711, 580 liver hematoxylin and eosin slides were available and retrieved from the ADFS files.

A total of 550 slides have been reviewed by at least one reviewer, 127 by two reviewers and 75 by three reviewers. The reviewers include one pathology resident, one surgical pathologist, and one medical examiner/forensic pathologist. The Batts-Ludwig modification of the Scheuer grading system designed for chronic hepatitis cases was used by the reviewed to standardize the information, acknowledging that most of these cases may not represent chronic hepatitis in the first place or that the information needed to make such diagnosis is not available. The information obtained includes the degree of inflammation (grade) and the degree of fibrosis (stage). The presence or absence of steatosis was also recorded and graded if present and any other significant pertinent findings recorded.

Paraffin embedded blocks were retrieved from 75 of the cases that had shown morphologically some degree of inflammation. Four micron sections were obtained on coated slides and immunohistochemistry for the hepatitis B core antibody was performed.

From the 550 reviewed, 229 (41.6 %) had no significant inflammation or fibrosis scored by one or two pathologist, indicating no morphologic evidence of hepatitis. Another 48 (8.7 %) cases had no significant inflammation or fibrosis by one reviewer and variable degrees of inflammation or fibrosis by additional reviewer/s. An additional 122 (22.1 %) cases by one, two or three reviewers had minimal inflammation and mild fibrous portal expansion; this pattern with no clinical information may only represent chronic triaditis, a common finding in liver tissue from medical examiner adult autopsy with no clinical significance. The remaining 145 (26.3 %) cases had mild to severe portal and lobular inflammation and fibrosis that ranged from fibrous portal expansion to cirrhosis. Six cases has marked autolysis and were not graded for inflammation or staged for fibrosis.

Cases with minimal to marked changes were included in the group that was selected for immunohistochemistry. All except one case were negative for Hepatitis B core antigen. The positive case had cirrhosis.

This study shows that approximately one fourth of the cases had morphologically features that would indicate chronic hepatitis in the appropriate clinical setting. The prevalence of hepatitis B appears to be low in this cohort. The prevalence of hepatitis C remains to be investigated in this group.

Prevalence, Hepatitis, South Alabama