Presence of Hartmann’s Pouch in Human Gallbladder
Nurun Nahar¹, Shamim Ara², Mushfika Rahman³, Sunjida Shahriah⁴, Halima Afroz⁵

Abstract
Context: Hartmann’s pouch is an out-pouching of the wall of the gallbladder, at the junction of the neck of the gallbladder and the cystic duct. It may be a site where gallstone impacts, which leads to mucocele of gallbladder. So its identification is useful in delineating biliary anatomy while performing a cholecystectomy.

Objective: To identify the presence of Hartmann’s pouch in human gallbladder.

Study Design: A cross-sectional type of study.

Place and period of study: The study was carried out in the Department of Anatomy, Dhaka Medical College, Dhaka from July 2008 to June 2009.

Materials: 70 postmortem gallbladder were collected from unclaimed dead bodies that were under examination in the morgue of the Department of Forensic Medicine, Dhaka Medical College, Dhaka.

Methods: Formalin fixed gallbladder was washed with plain tap water to remove excess formalin and was kept on metallic tray. On observation Hartmann’s pouch in gallbladder was detected and noted.

Results: In the present study 70 cadaver’s gallbladder were observed carefully in the neck region for Hartmann’s pouch. The Hartmann’s pouch was detected in 4 cases out of 70 (5.7%).

Conclusion: Further studies to find out the gross anatomy and histological study of Hartmann’s pouch is recommended.

Key Word: Hartmann’s pouch, Gallbladder.

Introduction:
Hartmann’s pouch was named after Henri Albert Hartmann who first described it¹. The gallbladder is divided into a fundus, a body and a neck or infundibulum. The wall of the neck where it join with the cystic duct may show a small diverticulae known as Hartmann’s pouch sometimes project downward and backward towards the duodenum². This is not a feature of normal gallbladder and is always associated with a pathological condition; it may be the site of impaction of gallstone³,⁴. This pouch is variable in size but a large Hartmann’s pouch may obscure the cystic duct and the Calot’s triangle. This may be the result of plain enlargement or due to adherence to the cystic duct or bile duct⁵. When a gallstone lodges in this area, the gallbladder cannot empty normally and contractions of the gallbladder wall produce severe pain⁶ and leads to mucocele of gallbladder. So its identification is useful in delineating biliary anatomy while performing a cholecystectomy.

Fig.-1: Showing Hartmann’s pouch of gallbladder

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Materials:
70 postmortem gallbladder were collected from unclaimed dead bodies that were under examination in the morgue of the Department of Forensic Medicine, Dhaka Medical College, Dhaka. The study was approved by the Ethical Review Committee of Dhaka Medical College, Dhaka. The collected samples were divided into three groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Age in years</th>
<th>No of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10-20</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>21-40</td>
<td>34</td>
</tr>
<tr>
<td>C</td>
<td>41-60</td>
<td>28</td>
</tr>
</tbody>
</table>

Methods:
Formalin fixed gallbladder was washed with plain tap water to remove excess formalin and was kept on metallic tray and observed carefully in the neck region for Hartmann’s pouch.

Results:
In the present study 70 cadaver’s gallbladder were observed carefully in the neck region. The Hartmann’s pouch was identified in 4 cases out of 70 (5.7%). Van Eijck et al\(^7\) examined 98 gallbladders; 49 obtained after laparoscopic or open cholecystectomy and 49 obtained after postmortem examination, among the gallbladder Hartmann’s pouch was present in 51 out of 98 (52%), which was much higher than that the present study.

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Hartmann’s Pouch</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>A (n = 8)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>B (n = 34)</td>
<td>1 (2.9)</td>
<td>33 (97.1)</td>
</tr>
<tr>
<td>C (n = 28)</td>
<td>3 (10.7)</td>
<td>25 (89.3)</td>
</tr>
</tbody>
</table>

Statistical analysis done by Chi-square test, ns = not significant.

Discussion:
In the present study, 70 cadavers gallbladder were observed carefully in the neck region. The Hartmann’s pouch was identified in 4 cases out of 70 (5.7%). Van Eijck et al\(^7\) examined 98 gallbladders; 49 obtained after laparoscopic or open cholecystectomy and 49 obtained after postmortem examination, among the gallbladder Hartmann’s pouch was present in 51 out of 98 (52%), which was much higher than that the present study.

References: