Original Research Article

Outcome of Nasal Septalhematoma / Abscess

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Abstract
Septalhematoma and abscess are infrequent conditions, but can result in a serious complications if not dealt with at a proper time.
To study the outcome of nasal septalhematoma and abscess in relation to the time of diagnosis and drainage.
Forty three patients were prospectively studied, the time of diagnosis, drainage and outcome were sequentially evaluated.
Forty three patients (31 males and 12 females), age range 3-20 years (mean age 8 years) were included. Surgical interference (drainage with anterior package and insertion of drain) was performed in all patients.
A delay in diagnosis and surgical drainage is the main cause of subsequent complication.

Key Words: hematoma, abscess, deformity.

Introduction
The nose is one of the most injury prone part of the head because of the most prominent facial bone[1]. For this reason it is expected that septalhematoma and/or abscess will commonly occur; however unusual [2,3]. Nasal injury is the main cause of septalhematoma / abscess formation[1,4]. Septalhematoma / abscess formed when blood or pus is collected between perichondrium or periosteum and septalcartilage or bone forming a unilateral or bilateral septal swelling. other etiology are surgery (septoplasty)[3,5,6].

Septalhematoma / abscess are an emergency conditions that require urgent interference because it can cause nasal functional defect (airway obstruction), or cosmetic deformity (saddle nose deformity) and occasionally a serious intracranial (sinus thrombosis, meningitis, or brain abscess ) complications[4,6].

Materials and Methods
This study was a prospective research performed on 43 patients (male to female ratio 2.5:1, table (1), age range was 3 years to 20 years with a mea age of 8 years, diagnosed with septalhematoma / abscess and treated in the otorhino-laryngology
department of Al-Hilla general teaching hospital from August 2005 to September 2011. Most of the patients were recruited through the emergency department, while the remaining were referred from primary care units. A detailed history was taken from patients or their parents and examination was done including anterior rhinoscopy. The patients with nasal trauma of a various degrees were included in the study, while those with boils in the vestibule, post-surgery or diabetic patients were excluded. Most cases had used an oral antibiotics prior to presentation. All patients presented with nasal airway obstruction as a main symptoms. Other symptoms are shown in table (2). The cases of heamatoma were presented within 7 days, while those with septal abscess after 7 days of onset of their symptoms. All patients were treated by surgery under general anesthesia (a vertical incision, insertion of drain and packing). With a six months follow up period.

**Table 1:** Gender of patients with septal heamatoma / abscess

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>31</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
</tr>
</tbody>
</table>

**Table 2:** Symptoms in nasal septal heamatoma / abscess

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal obstruction</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td>Mouth breathing</td>
<td>40</td>
<td>93</td>
</tr>
<tr>
<td>Pain in the nose</td>
<td>20</td>
<td>46</td>
</tr>
<tr>
<td>Headache</td>
<td>2</td>
<td>4.6</td>
</tr>
</tbody>
</table>

**Results and Discussions**

All patients were presented with post traumatic nasal obstruction. Other studies reported similar results [3,5,6,7,8,9]. The diagnosis of septal heamatoma / abscess depended on history and nasal examination. Males predominance [6] with male to female ratio ranging from 2:1 to 8:1 [5,7,10,11,12,13]. In this study a complete resolution without sequele found in early diagnosed and treated patients, while nasal deformity (saddle nose) found in 13.9% when the trauma delayed more than 7 days, thereafter 4.6% developed intracranial complications as showed in table (3).

**Table 3:** Complications in relation to the time of presentation

<table>
<thead>
<tr>
<th>Duration of symptoms</th>
<th>Saddle deformity</th>
<th>Intracranial complication</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-7 days</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7-14 days</td>
<td>6</td>
<td>0</td>
<td>13.9</td>
</tr>
<tr>
<td>&gt;14 days</td>
<td>0</td>
<td>2</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Chukuezi agreed with our suggestion that deformities were due to delay in presentation and delay in drainage of the abscess that can cause cartilage destruction[8,14,15]. Other studies suggesting that a delay in surgical drainage is an important factor for the development of intracranial complications [16,17].

Conclusions
Early diagnosis and prompt treatment of patients with post traumatic nasal septal-heamatoma/abscess are an important factors in the prevention of asthenic and serious intracranial complications.

References