AUDIT OF PATIENTS OF EPISTAXIS: TREATMENT MODALITIES AND RELATION WITH BLOOD GROUPS
Ehsan-ul-Haq,1 Shahzad Hussain Qadri, 1 Irshad-ul-Haq

ABSTRACT

Background: Epistaxis is one of the common condition faced in emergency. Objective: To evaluate the pattern of epistaxis, treatment, modalities and relation of epistaxis with blood groups. Patients and Methods: This retrospective study was conducted at department of Ear, Nose, Throat, Head & Neck Surgery, Sheikh Zayed Medical College/Hospital, Rahim Yar Khan from 1 January to 31 December 2010. Patients with spontaneous severe epistaxis who require hospitalization for control were included in this study and those who were with obvious cause like trauma, rhinolith, foreign bodies, granulomatous condition, tumours, blood dyscrasia and age below one year were excluded from this study. Data regarding age, gender, mode of presentation, under lying cause, blood groups and treatment modalities of consecutive 160 admitted cases of epistaxis was collected and analyzed by manual method and with the help of SPSS version 19. Sixty patients were excluded from this study because of blood dyscrasia, granulomatous disease and tumours. Trauma was not included in this study. To determine the association of blood grouping with epistaxis 100 controls were also included in the study. Results: Hypertension above 50 years was the most common cause. It was more common in male patients (72%) as compared to in female. Sixty patients (60%) were above 50 years, twenty (20%) patients were in between (30 to 49) years, nine patients (9%) were in between (10 to 29) years and seven patients (7%) were in between (01 to 09) years of age. Hypertension was observed in sixty (60%) patients, chronic rhino sinusitis in twenty (20%). Eighty five patients (85%) were managed by anterior nasal pack and in fifteen patients (15%) posterior nasal packing was done. Blood group (O) distribution was present in (47%), while in control group it was 38%. Conclusion: In adult admitted patients, hypertension was the major cause when trauma, granulomatous disease and blood dyscrasia was excluded. Anterior nasal packing is still valuable in control of epistaxis. Patients with blood group O was found in majority of patients of epistaxis. Key words: Epistaxis, Hypertension, Nasal packing, Blood groups.

INTRODUCTION
All over the world, epistaxis is one of the commonest otorhinolaryngologic emergencies.1-4 It is also a common problem in Pakistan. Epistaxis develops severe panic in the minds of patients and relatives. Most cases of epistaxis do not have an easily identifiable cause.5 Both local and systemic pathologies can play a role in it.6 The bleeding may occur from one or many points particularly Little's area or posteriorly from sphenopalatine artery.7-8 Treatment of epistaxis encompasses different modalities like correction of septal deviations, cautries, anterior and posterior nasal packing and vessels ligation.9 This study was conducted to assess patterns of epistaxis, treatment modalities and relation with blood groups
of one hundred and sixty patients, sixty patients (32.27%) had fractures of nasal bone, granulomatous disorders or foreign body nose. They were excluded from this study. Statistical analysis was done by simple manual analysis and with the help of SPSS version 19. Patients with spontaneous severe epistaxis who require hospitalization for control were included in this study and who were with obvious cause like trauma, rhinolith, foreign bodies, granulomatous condition, tumors, blood dyscrasia and age below one year were excluded from this study.

For blood grouping, standard slide method was adopted. A drop of each of the monoclonal antisera (Anti A, Anti B and Anti D) was taken on glass slides. Blood was mixed with each serum separately with the help of separate glass rods. Blood groups were determined on the basis of agglutination reaction within 5 minutes of mixing. Anterior nasal packing and posterior nasal packing was done for management.

RESULTS
A total of 100 patients having epistaxis were included for the purpose of analysis of association with blood grouping 100 controls were also included in study. 60% of the patients of epistaxis were above 50 years of age. (Table I). 72% of the patients of epistaxis and 50% of the controls were male.

Table I: Age distribution of epistaxis patients

<table>
<thead>
<tr>
<th>Age in years</th>
<th>01 - 9</th>
<th>10 - 29</th>
<th>30 - 49</th>
<th>Above 50</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Of Cases</td>
<td>7</td>
<td>9</td>
<td>24</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>Percentage</td>
<td>7%</td>
<td>9%</td>
<td>24%</td>
<td>60%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Highest number of patients reported in a single month was June. Among the patients with epistaxis O group distribution was present in 47%. While in control patients without epistaxis, it was 38% (Table III). Most of the patients in both groups were blood group O positive. Blood group O was significantly associated with epistaxis. (p value <0.05). (Table II)

Table II: Blood groups in patients with and without Epistaxis

<table>
<thead>
<tr>
<th>Blood Group/patients</th>
<th>A +ve (%)</th>
<th>B +ve (%)</th>
<th>O +ve (%)</th>
<th>AB +ve (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with Epistaxis</td>
<td>18%</td>
<td>17%</td>
<td>47%</td>
<td>18%</td>
</tr>
<tr>
<td>Patients Without Epistaxis</td>
<td>22%</td>
<td>23%</td>
<td>38%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Regarding etiology, hypertension was the predominant cause in 60% cases. Out of them, 16 patients were taking antihypertensive treatment regularly, 14 patients irregularly and 30 patients were not aware that they has hypertension. Twenty patients (20%) were having recurrent Rhino sinusitis and has habits of picking nose. Deflected nasal septum was diagnosed in fifteen (5%) cases. It was noted that in these cases of septal deflection spur or convex side of deflection was the commonest site of bleeding. In remaining 5% cases cause was not identified.

DISCUSSION
Epistaxis is the most common ENT emergency worldwide. Epistaxis is not a diagnosis. It may be a symptom or a sign of some underlying disease. In this study of one hundred cases, male patients were more as compared to female patients (72% and 28%). Hypertension was the predominant cause in 60% of cases followed by chronic rhino sinusitis (20%). Month wise distribution of the cases indicated higher incidences in summer months. Rahim Yar Khan is located in Cholistan desert where in summer season humidity becomes very low which causes dryness in nose and produces creases. Vessel passing through this area ruptures and starts to bleed. This is the most probable cause of increased incidence in summer season. Blood group O patients have more tendency of epistaxis. Blood group O patients have more tendency of epistaxis. Blood grouping is based on antigenic property of red blood cells (RBC). According to the presence of these antigens and antibodies blood is divided into four major groups called A, B, AB and O. According to Miller et al, blood group O was associated with a lower expression of von Willebrand
compared with non O blood groups. Individuals with blood group O are more likely to be diagnosed as having a mild form of von Willebrand disease.\textsuperscript{16,17} This study revealed that Blood group O is significantly higher in patients with epistaxis as compared with non epistaxis patients (controls), which might be due to the lower expression of von Willebrand factor causing bleeding tendency. Blood group O is known to be associated with a lower expression of von Willebrand factor which plays an important role in clotting. It was significantly higher in patients with epistaxis as compared with non epistaxis. It was suggested that blood group O may be a risk factor in the development of epistaxis.\textsuperscript{18,19}

**CONCLUSION**

In adult admitted patients, hypertension was the major cause when trauma, granulomatous disease and blood dyscrasia was excluded from the study. Anterior nasal packing was effective in control of epistaxis. Blood group O was found in significant number of patients of epistaxis.

**REFERENCES**