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Research Article

### AN ASSESSMENT OF BLOOD GROUP AND ITS ASSOCIATION WITH TREATMENT OPTIONS AMONG EPISTAXIS PATIENTS

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**Abstract:**

**Background:** in emergency wards, the situation that mostly handled is epistaxis.

**Objectives:** The objective of this research study was to highlight the association of epistaxis with blood groups, modalities, the pattern of epistaxis and its management.

**Patients and methods:** We completed this research at Jinnah Hospital, Lahore from March 2017 to February 2018. The people with reasons such as rhinolith granulomatous situation, trauma, blood dyscrasia, foreign bodies and less than one year of age were rejected. The people selected for this study were with serious epistaxis. These patients need hospital treatment. The numbers of the patients excluded from the study were 60. The purpose of rejection was granulomatous disorder; tumour of rejection was a granulomatous disorder, tumour and blood dyscrasia. 100 controls were chosen for this study for the purpose of assessment of connection of blood grouping with epistaxis age, blood groups, mode of presentation, reason and management modalities of adjacent 160 cases of epistaxis that were hospitalized. Cases of epistaxis that were hospitalized. SPSS was used for data assessment by manual technique.

**Results:** The most ordinary reason above 50 years was hypertension. Comparative to females, male patients (72%) suffer from this disorder mostly. Sixty (60%) and seven (7%) were presented with hypertension and chronic rhinosinusitis respectively. The anterior nasal pack was carried for eighty-five (85%) patients whereas posterior nasal packing was carried out for 15(15%) patients. The number of patients within 1 to 9 years, 10 to 29 years, 30 to 49 years and above fifty were seven (7%), nine (9%), twenty (20%), and sixty (60%) patients respectively. In the control group, 38% of patients were having blood group (O) while 47% in other.

**Conclusion:** It was concluded that most of the patients of epistaxis were with blood group 'O'. Trauma, blood dyscrasia and granulomatous disorder were excluded from the study so, the main reason in hospitalized patients was hypertension. In the management of epistaxis, anterior nasal packing is still significant.

**Keywords:** Epistaxis, Hypertension, Nasal packing, Blood groups.

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**INTRODUCTION:**

All around the world, patients of epistaxis and their relatives are restless due to this disorder. The disorder of epistaxis is most ordinary otorhinolaryngology emergencies worldwide [1 – 4]. In Pakistan, this disorder is commonly found. Identification of epistaxis is difficult in many cases [5]. In its causes, local as well as systemic pathologies can be included [6]. From the posterior site of a sphenopalatine artery or from various sites mainly little's area is the points where bleeding may start [7 – 8]. Correction of septal deviations, vessel ligation, anterior and posterior nasal packing and cauterization are factors used in the management of epistaxis [9]. The objective of this research study was to highlight the association of epistaxis with blood groups. Modalities, the pattern of epistaxis and its management.

**PATIENTS AND METHODS:**

We completed this research at Jinnah Hospital, Lahore from March 2017 to February 2018. One hundred and sixty patients were selected successively. A Performa was designed and information was entered in this Performa. The comparison was made between patients of epistaxis and patients without epistaxis regarding blood groups. 100 patients were chosen as a control group. This group contains fifty male and fifty female. For these patients, blood grouping was carried out. The people with the granulomatous disease, nasal bone and foreign body nose was excluded from this study. The numbers of such patients out of one hundred and sixty were sixty (32.21%). The people with reasons such as rhinolith granulomatous situation, trauma, blood dyscrasia, foreign bodies and less than one

years of age were excluded from the study. The people selected for this study were suffering from serious epistaxis. These patients need hospital treatment. Standard slide technique was carried out for identification of blood groups. On glass slides, a drop of each of the monoclonal anti-sera (Anti A, Anti B, and Anti D) was put. The separate glass rod was used for mixing of blood with each serum. After 5 minutes, agglutination reaction was observed and on this basis, blood groups were identified. For the control of disease, anterior and posterior nasal packing was carried out.

**RESULTS:**

Total patients enrolled for this study were 100. These patients were having secure epistaxis. 100 controls were chosen for this study. The aim of the control group was an assessment of connection with blood grouping. The percentage of males in the control group and epistaxis patients was 50% and 72% respectively. The age of 60% of the patients having epistaxis was more than 50. In both groups, blood group O was commonly found. The relationship between blood group O and epistaxis was positive (P-Value <0.05). In the control group, 38% of patients were having blood group O, while 47% patients in others. In more than half of patients, the most common cause of epistaxis was hypertension 30% of patients were unaware of this reason. However, for the management of hypertension, antihypertensive medication was used by 16 patients. In fifteen (5%) patients, the deflected nasal septum was identified. Repeated Rhino sinusitis was noticed in twenty (20%) cases. The reason was not observed in 5% of the remaining cases.

**Table – I: Age Distribution**

Age in years	01-9	10-29	30-49	Above 50	Total
No. of cases	7	9	24	60	100
Percentage	7	9	24	60	100

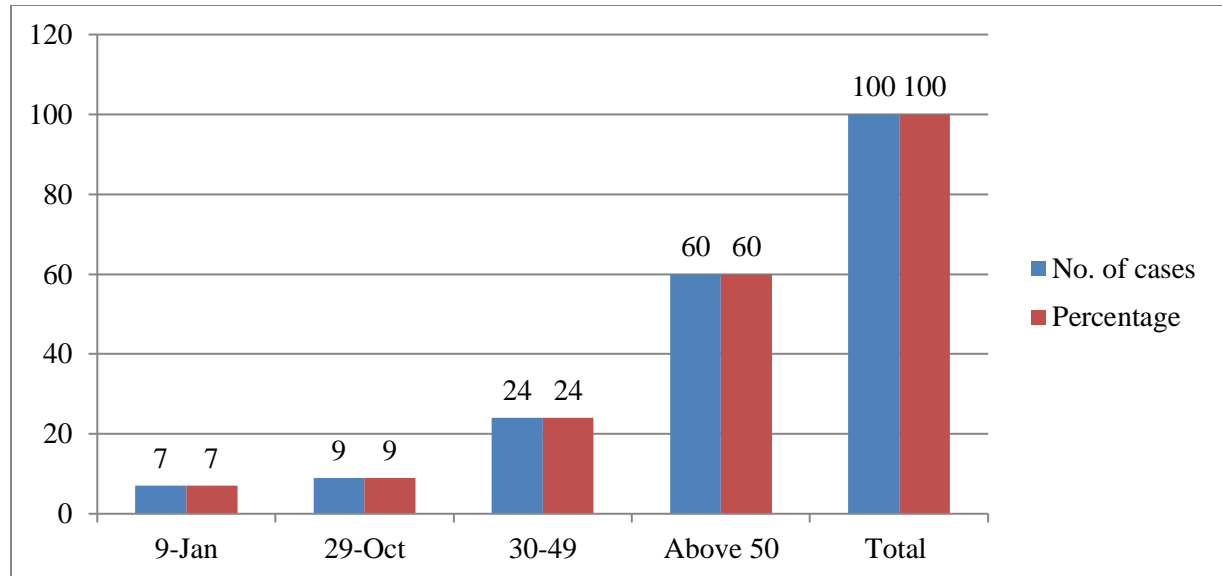
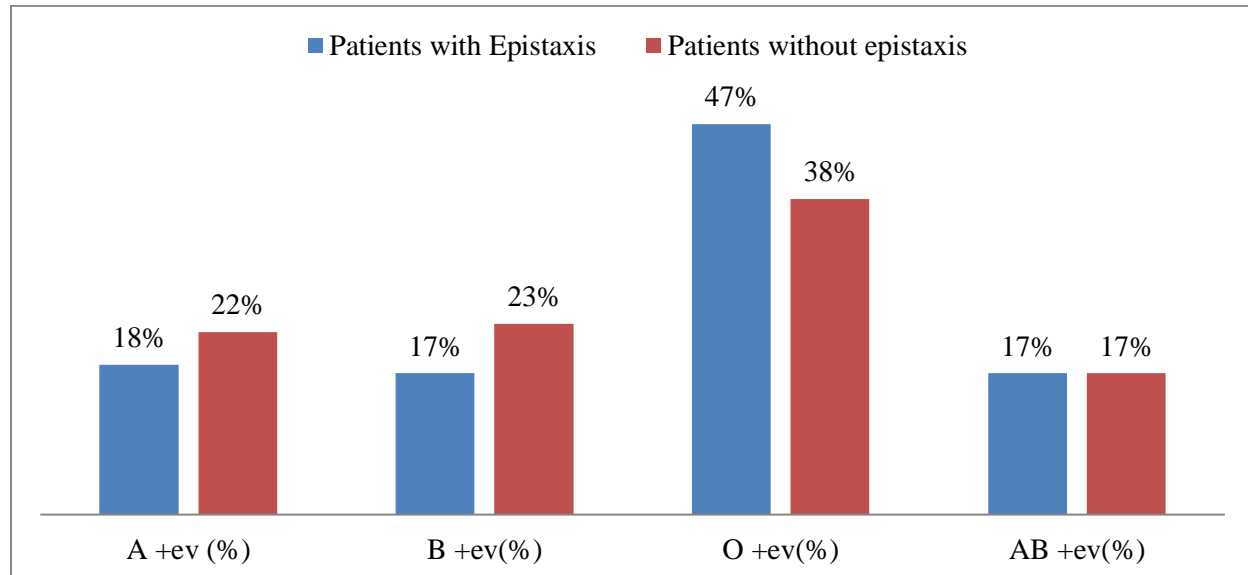


Table – II: Blood Group Distribution

Blood Group/patients	A +ev (%)	B +ev(%)	O +ev(%)	AB +ev(%)
Patients with Epistaxis	18%	17%	47%	17%
Patients without epistaxis	22%	23%	38%	17%

**DISCUSSION:**

All over the world, the most ordinary ENT emergency is epistaxis [10 – 12]. Epistaxis leads to some other disease which is not obvious. Comparative to females (72%) suffering from epistaxis is high. The main reason for epistaxis sinusitis (20%). In the month of summer, the occurrence of epistaxis is increased. The climate of

the city is hot with low humidity. Due to this, the nose becomes dry and creates creases. Bleeding starts as vessels rupture. Epistaxis and blood group O have a strong relation. On the basis of the antigen of red blood cells (RBC), the blood group is identified. Four groups are made for blood which included, ABAB and O, based on these antigens [12 – 15]. Miller et al. organized a study. He noted that

comparative to non-O blood groups, expression of von Willebrand was lower in blood group O [16]. A mild form of bone Willebrand disorder is mostly observed in people having blood group O [16 – 17]. It was considered that in the establishment of epistaxis, blood group O be may be an associated factor [18 – 19].

### CONCLUSION:

It was concluded that most of the patients of epistaxis were with blood group O. trauma, blood dyscrasia and granulomatous disorder were excluded from the study so, the main reason in hospitalized patients was hypertension. In the management of epistaxis, anterior nasal packing is still significant.

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