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RESEARCH ARTICLE

EPISTAXIS: CLINICAL REVIEW OF 176 PATIENTS

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Abstract

Objective: To carry out a retrospectively review and analyze the general data, incidence, etiological and clinical findings as well as treatment options for epistaxis patients.

Patients and Methods: We reviewed the files of 176 patients with epistaxis who were treated at department of otolaryngology of the Royal Medical services of Jordan between 2017 and 2021.

Data regarding Age, sex, concomitant medical disorders, medications, directly identifiable causes, epistaxis seasonal variation, and the type of management received were all recorded.

Results: Epistaxis occurred in 0.52 percent of all cases and 3.2 percent of patients with nasal problems. The patients' ages ranged from 5 to 85 years old, with a mean age of 43.3 years. The ratio of males to females is 1.5:1. Majority of patients (89.8%) presented with unilateral nasal bleeding and 10.2% with bilateral nasal bleeding. Intermittent nasal bleeding was recorded in 73%. In 63 cases (35.8%), the exact etiological cause couldn't be identified while in the rest of patients we could identify a causal factor; infection (32.4%), hypertension (18.2%), trauma (6.8%), blood dyscrasias (2.8%), uremia (2.3%) and tumor (1.7%). Regarding the bleeding sites, more than 70% were from the anterior part of the nasal cavity. Regarding the modalities of treatment for epistaxis, anterior nasal packing being the most common technique 91 cases (51.7%) and conservative management in terms of anterior, posterior nasal packing and local cauterization of bleeding site was effective in majority of cases.

Conclusion: Epistaxis is a common otolaryngologic emergency**.** To be able to undertake optimal care, otolaryngologists and general physicians should know the causes and features of patients and diseases, particularly in their own area of practice.

Introduction:-

Epistaxis is a common ENT complication. Approximately 60% of the population will experience at least one bleeding episode during their lives (1-3), however only 6% of this group will require medical intervention. The disorder has a bimodal distribution, with incidence peaks in children under the age of 10 and in those over the age of 50. Epistaxis appears to affect men more frequently than women (1, 4). Epistaxis is more common during the colder winter months, when temperature and humidity variations are more extreme (5, 6). It's also frequent in hot, dry, low-humidity areas.

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Children's nosebleeds are more common than adults', but adults' nosebleeds are more serious. Anterior bleeds are less difficult to treat and account for 80 to 95 percent of all occurrences (5). Posterior bleeds, which are more common in older people, are significantly more problematic and are linked to problems like sinusitis, rebleeding, and the need for surgery and blood transfusions (3, 5).

Nasal bleeding can be caused by a variety of factors, including hypertension, face trauma, iatrogenic problems, hereditary hemorrhagic telangiectasia (HHT), benign or malignant tumors, internal or external carotid artery vascular anomalies, and coagulopathies. Despite the wide range of causes, most epistaxis instances are idiopathic.

The aim of this study is to retrospectively review and analyze the general data, incidence, etiological and clinical findings as well as treatment options for epistaxis patients.

Material and Methods:-

We reviewed the files of 176 patients with epistaxis who were treated at department of otolaryngology of the Royal Medical services of Jordan between 2017 and 2021.

Data regarding Age, sex, concomitant medical disorders, medications, directly identifiable causes, epistaxis seasonal variation, and the type of management received were all recorded.

We documented that all patients had underwent complete physical examination, and examination of ears, nose, and throat with special attention on identifying the site of bleeding. All patients had hematological and coagulation tests, urine analysis, and radiological evaluations.

Results:-

Over a four-year period between 2017 and 2021, 33600 patients visited the otolaryngology department at Royal Medical Services.

The number of patients who presented with nasal problem was 5431 patients, 176 cases of these cases were epistaxis.

Epistaxis occurred in 0.52 percent of all cases and 3.2 percent of patients with nasal problems.

The patients' ages ranged from 5 to 85 years old, with a mean age of 43.3 years. Majority of patients (67 patients) 38% were between 35-45 years.

Out of 176 cases of epistaxis, 105 cases were males (59.6%) and 71 females (40.4%). The ratio of males to females is 1.5:1.

We have noticed that the majority of epistaxis patients (48.3%) presented during the summer months (May-October).

Regarding the presentation of patients, the majority of patients (89.8%) presented with unilateral nasal bleeding and 10.2% with bilateral nasal bleeding. Intermittent nasal bleeding was recorded in 73%.

In 63 cases (35.8%), the exact etiological cause couldn't be identified while in the rest of patients we could identify a causal factor; infection (32.4%), hypertension (18.2%), trauma (6.8%), blood dyscrasias (2.8%), uremia (2.3%) and tumor (1.7%).

In terms of bleeding sites, 102 cases (60 percent) had bleeding from the septum, with 76 cases (43.2 percent) having bleeding from the anterior part of the septum and the remaining 26 cases (14.8 percent) having bleeding from the posterior part of the septum. The bleeding was from the lateral wall in 44 cases (25 percent), the inferior turbinate in 23 cases (13 percent), and the middle turbinate in 21 cases (12 percent).

The bleeding came from the nasal floor in 48 (27.3 percent) of the cases, the anterior part in 42 (23.9 percent), and the posterior part of the nasal floor in 6 (3.4 percent) of the cases. Because 18 cases (10.2 percent) had bilateral nasal

bleeding, the total number was 194.

In terms of treatment modalities for epistaxis, anterior nasal packing was the most commonly used technique in 91 cases (51.7 percent), followed by local cauterization of the bleeding site in 79 cases (44.9 percent), posterior nasal packing in 4 cases (2.3 percent), and embolization of the internal maxillary artery in two patients (1.1 percent) who had intractable epistaxis and the previous measures were ineffective.

Discussion:-

An epistaxis episode can be insignificant, catastrophic, or anything in between. Of course, life-threatening nasal hemorrhage is uncommon (5), and most patients with a nosebleed do not seek medical attention because the bleeding stops spontaneously or responds to home-care measures.

Those who seek treatment usually have more severe or recurring bleeds; these patients are often distressed, and some are afraid they will bleed to death. Clinicians may believe that epistaxis is time-consuming and anxiety-inducing, and many are unprepared to deal with it. Nonetheless, primary care providers in all settings must be knowledgeable in the management of emergency epistaxis and be able to handle the vast majority of cases.

Treatment necessitates a methodical and systematic approach, with options varying depending on the cause, location, and severity of the hemorrhage. Thorough evaluations of the patient, as well as isolation and control of the bleeding site via various means, are required for proper management.

The male to female ratio (1.5:1) and peak age (35-45) of our epistaxis patients were distinct from the previous literature in terms of general information. Male and female patients were reported in equal numbers by Watkinson, Emanuel, and Santos, with peak ages of 15-25 and 45-65 years (7-9). However, it is consistent with earlier research (3, 10, 11). Epistaxis cases were greater in Jordan during the summer months (May-October), when relative humidity is low and the weather is rather dry.

In this study, hypertension was the most usually related medical condition (18.2 percent). Manfredini et al looked at the medical records of 1,741 epistaxis patients and reported a biphasic circadian pattern with a primary peak in the morning and a smaller secondary peak in the evening (12).

They speculated that high blood pressure could cause or contribute to epistaxis. Fuchs et al, on the other hand, conducted a cross-sectional analysis of 1,174 individuals and found no link between epistaxis and hypertension (13). Instead of being the primary cause of epistaxis, hypertension in epistaxis patients could be a cofactor or co-incidence. The link should be investigated further.

Every case of epistaxis should be properly investigated, and a possible haemorrhagic diasthesis should be ruled out as quickly as possible. The patient should be questioned thoroughly about any previous drug use for other illnesses. Anticoagulants are commonly used, and this can result in epistaxis in persons who take them. However, blood dyscrasias were observed in 2.8 percent of the participants in our study. Jones et reported over half of epistaxis patients had aberrant clotting profiles, and half of them had no suggestive history, therefore they suggested coagulation screening in all cases (14). In contrast, Thana et al reported just 8.3 percent abnormalities in regular coagulation screening, and all of the patients had a history of anticoagulant use (15). They recommended testing only when clinically necessary.

The anterior region of the nasal cavity accounted for more than 70% of the bleeding locations. Even in patients with hypertension, anterior bleeding sites were more common than posterior bleeding sites in all age categories. Previous research had suggested that posterior bleeding sites and/or hypertension were more common in elderly people (7-9).

When it comes to epistaxis treatment options, the most popular method is anterior nasal packing in 91 cases (51.7%), conservative therapy by mean of anterior, posterior nasal packing, and local cauterization of the bleeding site was efficacious in 98.9% of cases, with only two cases requiring surgery. The internal maxillary artery was embolized in 1.1 percent of patients with intractable epistaxis who had failed to control it with other methods. Other researches have made similar findings (16, 17).

No mortality was encountered in this study. According to certain research, fatality rates owing to epistaxis are

negligible (Small and Maran, 1984; Denholm et al, 1993). (18, 19). Others have reported fatality rates ranging from 0.6 to 7.1% (Juselius, 1974). (20).

Conclusion:-

Epistaxis is a common otolaryngologic emergency**.** To be able to undertake optimal care, otolaryngologists and general physicians should know the causes and features of patients and diseases, particularly in their own area of practice.

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