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Nosebleeds, a historical glance

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Abstract

Who among us has not experienced moments of terror when blood starts to fall from the nose? It is the case of a nosebleed that was mentioned in historical sources for a period before the birth of Jesus, peace be upon him. In this article, we outline the stages of identifying the nature of this disease and how scientists and doctors deal with it in various conservative and surgical treatment methods throughout the ages and in chronological order.

Key Words: doctors, Nosebleeds, History, chronological order

The Review

One of the most emergent events in otolaryngology practice is epistaxis (nosebleeds), about (60%) of American population experience an attack of nosebleeds while only (6%) of them seek medical opinion, a part of this group only (0.16%) will be admitted to the medical ward.^{1,2,3,4}

Epistaxis is new Latin, derived from Greek, from *epistazein*, to bleed at the nose, from *epi*, on, plus *stazein* to fall in drops; it means nosebleeds or nasal hemorrhage.⁵

The word (Ru'af) is the Arabic synonym for epistaxis and it is derived from the verb Raafa-Raafan which means bleeding from the nose.⁶

In the interpretation (Tafsir) of the Surah 17 (Al-ISR'A) verse 101; epistaxis was quoted as one of the nine evident signs (miracles) by which The God (Almighty) helped the

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Prophet Moses (Peace upon him) to convince the Pharaoh to allow the Israelites to depart from slavery; Nosebleeds (Roaaf) was inflicted upon Egyptians and their water changed into blood. The fish in the Nile died, and the river stinks so the Egyptians will not be able to drink its water.⁷

The treatment of nosebleeds in ancient Egypt as described in Edwin Smith papyrus (1660 B.C) started with removing every worm of blood (the clot), and the nose packed with stripes of linen saturated with grease and honey.⁸

Hippocrates (460 B.C) considered nosebleeds as a substitute for menstruation among young people of both sexes. He described a method to stop bleeding by shaving the head with the application of cold fomentation. He was probably the first man who appreciate the use of pressure on the alae nasi as effective method to stop nosebleeds; in addition to the use of silver nitrates as an caustic material.^{9,10}

Susruta (fifth century B.C), the greatest Hindu surgeon prescribed the local application of ointment to nostril in case of bleeding.¹¹

In ancient Greece, one of the folk remedies to arrest nosebleeds is to slip a key down between the clothes and the skin in addition to use various charms, cold water and vinegar or salt to the forehead, hand, or feet¹¹.

The Arabic – Islamic physicians have dealt with epistaxis in many occasions and they wrote many articles about this problem. In the first Islamic era, medical sciences began with the Prophet Mohammed's medicine (may God bless him and grant him peace) [Al- Tib Al-Nabaway]. In his book (Al-Tib Al-Nabaway), Ibn-al- Qaim was mentioned blowing the papyrus ash mixed with vinegar in the nose of the sufferers to stop bleeding.¹²

Ancient Arab physicians attributed epistaxis to the following disease:

1. Al- Bahran which means excitation and disturbances in the cognizable forces caused by diseases.^{13,14}
2. AL- Sirsam (which is a tumour of the meninges that causes fever and mental disturbances) and also tumours of the liver and other tumours.¹⁵
3. Infectious diseases like pneumonia and pleurisy.¹⁵

4. Rupture of brain vessels.¹⁶
5. Swelling of a vein and its rupture or a diminution of the force which confines the blood within that vessel.¹⁴

Various therapeutic regimes for epistaxis were mentioned in the Arabic – Islamic literature, these include:

1. Inhalation cold water mixed with vinegar or instilling this mixture into the nose or using drops of Camphor.^{13,16,17}
2. Pouring cold water on the face and head.^{13,15}
3. Inserting a pack of linen soaked in vinegar or Rose water in the nose.^{13,14,16}
4. Bandaging the limb up to the testicles and putting a cotton wool in the ear.^{13,14,16}
5. Al – Hijama (cupping) sucking of the blood from the hands or region of the liver using cupping glass.^{13,14,15,16}

Drugs used by Arabic – Islamic physicians involved the use of heat or cold both may exert a cautery-like effect. They made vinegar from Figs, Dates and Grapes especially fermented red grapes. Vinegar is made of hot and cold spirit agents and it was used to heal ulcers and fresh wounds.¹⁸

Guyde Chauliac (French surgeon) [1300-1367] described a method to treat nosebleeds by sniffing up water in which soothing or astringent drugs were dissolved.¹¹

The physicians of the Middle Ages were familiar with cauterization as a method of treatment for nasal bleeding. Petrous Forestus (1522-1597) used silver nitrate and alum rubbed up with honey and applied with a probe.¹¹

Valsalva and Morgagni (1769) suggested that nasal hemorrhage might be arterial in origin, and it was Morgagni who practiced syringing the nose with cold water and to apply the spirit of wine to contract the mouth of swollen arteries.⁹

The first attempts at arterial ligation were at arterial ligation were in (1795) by Abernethy who tied the common carotid artery, unfortunately this man died. The first patient who survived the procedure was reported by Felming in (1803).¹⁹

Little (1879) and Kiesselbach (1880) identified the site of bleeding as being at the caudal end of the septum.⁹

Methods of cooling the nose have been recommended to control nasal bleeding since the days of Hippocrates, in (1884) Chester used cool water flowing inside a gum elastic catheter located within an Indian- rubber tubing to cool the nasal mucosal membranes. Bluestones and Smith have used cryotherapy to treat severe posterior epistaxis in humans.^{20,21}

Hydein (1925) performed external carotid artery ligation for control of nosebleeds.¹⁹ In (1928) Seiffert introduced internal maxillary artery ligation via a trans-antral approach as an effective method to arrest nasal bleeding.²² The first reported case of anterior ethmoidal artery ligation was pioneered by Goodyear (1937).²³ Intraoral ligation of the maxillary artery was first practiced by Commander Passe.²⁴

The hemodynamic of arterial circulation of the nose was brought to perfection by shaheen (1967) who pointed out the resemblance, hemodynamically, between the arterial circulation of the nose and the circle of Willis. He showed that the anastomoses between the two carotid systems were capable of accommodating a rapid and substantial migration of blood when the pressure in either system was lowered. Shaheen confirmed by contrast study of the excised nasal fossae of cadavers the presence of a branch from the nasopalatine artery supplying the superior turbinate and equivalent area of the nasal septum.^{25,26}

In (1974) Sokoloff reported the use of the radiologically guided therapeutic percutaneous embolization for intractable nasal bleedings.^{27,28}

The increment popularity of the endoscopic approach for controlling epistaxis is due a bit invasive procedures and the chance to developing complications in the above-mentioned ways to control nosebleeds in addition to achieving more control of nosebleeds in the endoscopic nasal arterial ligation, particularly the sphenopalatine artery.^{29,30,31} The first mention of endoscopic ligation of the sphenopalatine artery was by described by Budrovich and Saetti in 1992.³² It is worthy to mention that microsurgical ligation of the sphenopalatine artery was first described by Prades in the 1970.³³

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Conflict of Interests:

The author declares that there is no conflict of interest regarding the publication of this paper.

الخلاصة:

من منا من لم يمر بلحظات شعر بها بالرعب حين يبدأ الدم بالتساقط من الأنف . انها حالة الرعاف التي تم ذكرها في المصادر التاريخية لفترة الى ما قبل ميلاد السيد المسيح عليه السلام . في هذه المقالة نوجز مراحل التعرف على طبيعة هذا المرض و كيفية تعامل العلماء و الأطباء معه بمختلف الطرق العلاجية التحفظية و الجراحية على مر العصور و بتسلسل تاريخي.