

## Review of 300 Cases of Epistaxis

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### ABSTRACT

**Objective:** Aim of the study was to determine the etiology and management options of epistaxis admitted through emergency in our ENT Ward of Allied Hospital, Faisalabad. **Place & Duration of Study:** This study includes 300 cases of epistaxis admitted through emergency in our ENT Ward of Allied Hospital, Faisalabad from January, 2013 to September, 2014. **Materials & Methods:** All the patients in this series were admitted through Emergency of ENT Department, Allied Hospital, Faisalabad. Detailed history & thorough examination was done in all the patients. Investigations to measure Hemoglobin, total & differential Leucocyte Count, Platelet Count, Random Blood Sugar, Electrolytes & Serum Creatinine. Bleeding parameters like, Bleeding Time / Clotting Time (BT/CT), Prothrombin Time & Activated Partial Thromboplastin Time (APTT) should also be requested.

**Results:** In our study of 300 cases, 56 cases (18.67%) were of the maximum age group (51 to 60 years) and the minimum 30 cases (10%) were of age group between 1 to 10 years. 180 cases (60%) were males and 120 (40%) were females. Hypertension was the leading Etiological Factor in 83 cases (27.67 %) in our study. Next was the Idiopathic group in 67 cases (22.33%). Regarding treatment Anterior Nasal Packing was found to be sufficient in 123 cases (41%) in our study. 94 cases (31.33%) were required to be done Nasal Cautery. Only 09 cases (3%) required Posterior Nasal Packing. Arterial ligation or endovascular embolization was not required in any case. **Conclusions:** Our study concludes that hypertension is the leading cause of Epistaxis (27.67% of cases) in the age of group of 51 to 60 years (19% of cases). Whereas, the most effective treatment is Anterior nasal packing (41% of cases). **Key Words:** Etiology, Management, Epistaxis.

### INTRODUCTION

Thorough and compact history about age & sex of the patient; Anterior or Posterior bleed; Unilateral<sup>1</sup> or Bilateral; Minimal, Moderate or Profuse; Number of Episodes, Associated Symptoms; History of Trauma; Use of Medications or Co-morbidities should be asked. In younger patients, nose-picking (Epistaxis Digitorum) Rhinitis, Adenoiditis, Sinusitis, Bleeding Diathesis should be considered. In an adolescent male with profuse Epistaxis,

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Juvenile Nasopharyngeal Angiofibroma is a possibility. In older patients, Atherosclerosis & Hypertension are common causes of Epistaxis. Rigid nasal Endoscopy was performed with the patient in the sitting or lying position. A zero degree 4mm Telescope is used for adults and a zero degree 2.7mm Telescope for children examination. If a mass lesion is present, a Biopsy may be performed. A quick review about the Anatomy and Physiology, especially the air flow currents<sup>2,11</sup> in the nasal cavities, should be made. At the initial examination, if there is evidence of shock, crystalloids or 5% Dextrose-saline infusion may be started through a large-bore, I/V line. Simultaneously, blood should be taken for blood grouping & cross-matching. Angiography is necessary to locate the site of bleeding. Various treatment options<sup>3,12</sup> from conservative management to surgeries were tried.

## MATERIALS AND METHODS

All the patients in this series were admitted through Emergency of ENT Department, Allied Hospital, Faisalabad. Detailed history & thorough examination was done in all the patients. Investigations to measure Hemoglobin, total & differential Leucocyte Count, Platelet Count, Random Blood Sugar, Electrolytes & Serum Creatinine. Bleeding parameters like, BT/CT, Prothrombin Time & APTT should also be requested.

## RESULTS

In our study of 300 cases, 56 cases (18.67%) were of the maximum age group (51 to 60 years) and the minimum 30 cases (10%) were of age group between 1 to 10 years. 180 cases (60%) were males and 120 (40%) were females. Hypertension was the leading Etiological Factor in 83 cases (27.67 %) in our study. Next was the Idiopathic group in 67 cases (22.33%). Regarding treatment Anterior Nasal Packing was found to be sufficient in 123 cases (41%) in our study. 94 cases (31.33%) were required to be done Nasal Cautery. Only 09 cases (3%) required Posterior<sup>4</sup> <sup>13</sup> Nasal Packing. Arterial ligation or endovascular embolization was not required in any case.

**Table 1: Etiological Factors of Epistaxis**

Sr. No.	Etiological Factor	No. of Patients	Percentage
1	Acute Infection	49	16.33
2	Hypertension	83	27.67
3	Idiopathic	67	22.33
4	Viral Haemorrhagic fever	04	1.33
5	Trauma	63	21.00
6	Blood Dyscrasia	11	3.67
7	Tuberculosis	02	0.67
8	Angiofibroma	06	2.00
9	Malignant Lesions	10	3.33
10	Septal Polyp	05	1.67
	Total	300	100.00

**Table 2: Age of the Patients of Epistaxis**

Sr. No.	Age in Years	No. of Cases	Percentage
1	01 – 10	30	10.00
2	11 – 20	43	14.33
3	21 – 30	46	15.33
4	31 – 40	37	12.33
5	41 – 50	43	14.33
6	51 – 60	56	18.67
7	61 >	45	15.00

**Table 3: Treatment Options of Epistaxis**

Sr. No.	Treatment	No. of Cases	Percentage
1	Anterior Nasal Packing	123	41.00
2	Posterior Nasal Packing	09	03.00
3	Cautery	94	31.33
4	Conservative treatment	59	19.67
5	Angiofibroma excision	07	02.33
6	Septal polyp excision	08	2.67
	Total	300	100.00

## DISCUSSION

Epistaxis is one of the most common symptoms with which patients present to the Emergency Department. Epistaxis is a cosmopolitan<sup>5</sup> disease and the only key to success is a compact history and a thorough examination and thus analyzing the etiology and management<sup>6</sup> of epistaxis. Treatment can be surgical or non-surgical. Non-surgical approach had been used in 80-90% of cases. A 2010 study of Gracia et al determined that gauze packing, despite being slower and more uncomfortable, has a higher success rate, produces fewer local injuries, and costs less than inflatable balloon packing. In majority of them, bleeding is from kiesselbach's plexus. Nasal packing is required as an initial measure in patients with moderate to severe Epistaxis. Anterior packing

alone or both anterior & posterior packing may be done. The latter is required in the case of post-nasal bleed. It looks simple but a lot of clinical experience<sup>7</sup> is required to achieve perfection.

Examination of the nasal cavities and nasopharynx is deferred until later. Patients with profuse Epistaxis requires management<sup>8</sup> of Hypovolemic shock and other co-morbidities which may be present, in addition to anterior & posterior nasal packing.

Material used in various nasal tampons available commercially include compressed Gelfoam, Polyvinyl Alcohol (Merocel Tampons) and Carboxy Methyl Cellulose (Rapid Rhino Balloon). Bivona balloons are expensive and not easily available. However, they are better Tolerated by the Fastidious patients.

Acute infections, hypertension, viral hemorrhagic fever, blood dyscrasias, tuberculosis were dealt conservatively.

Malignant lesions after having there CT-Scans and TNM classification done, were biopsied and then dealt accordingly in our department or referred to oncology for Chemoradiotherapy.

Suturing<sup>9</sup> of bleeding vessel in Little's area is an option in refractory anterior Epistaxis. It was not needed in our study in any case as stated by Ismail<sup>10</sup>. Angiofibroma, was purely dealt as a surgical entity. Technique of Endovascular Embolization<sup>14</sup> is not available in our town, so it was not tried in our study. None of the case of hereditary haemorrhagic telangiectasia<sup>15</sup> was found. Surgical excision for septal polyp was found to be enough by intranasal approach in all cases.

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