

Case Report

Recurrent and Massive Life Threatening Epistaxis due to Nasal Heroin Usage

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Epistaxis, active bleeding from the nose, is a common ear nose and throat emergency, and can be severe or even fatal. We report a severe life threatening recurrent massive nasal bleeding caused by intranasal heroin use that has not hitherto been reported in the English literature. A 24-year-old male who took heroin several times nasally presented with massive nasal bleeding. A blood transfusion and an operation to halt nasal bleeding were required. The patient did not experience a bleeding attack 2 months following cessation of nasal heroin use.

Key Words. *Nasal heroin, Life threatening, Recurrent epistaxis*

INTRODUCTION

Nasal bleeding (epistaxis) has been frequently reported in the general population. Most affected persons do not need any medical care and almost 90% of epistaxis incidents are minor and/or self-limited. Rarely, massive nasal bleeding may require emergency care and even more rarely can cause death (1-3). Reasons for life-threatening nasal hemorrhage include post-operative complication, anti-agregan drugs, blood factor deficiencies, and vascular aneurysm (3-5). Recurrent severe life-threatening epistaxis due to nasal heroin or cocaine use has not been reported. Herein, we report on a case of severe epistaxis case due to nasal heroin use that required a blood transfusion, endoscopic electrocauterization, and repeated anterior and posterior nasal packing to halt the bleeding.

CASE REPORT

A 24-year-old male with no previous medical problem was admitted to the emergency service with a complaint of nasal bleeding. The patient's general physical examination was normal, except for massive nasal bleeding in the left nasal cavity on anterior rhinoscopic examination.

The patient did not display petechia, echymosis or general bleeding pathologies, hepatosplenomegaly and lymphadenopathy. At admission, hemoglobin was 16 mg/dL, platelets were 266,000/mcL and leucocytes were 8,300. Prothrombin time, activated prothrombin time and international normalized ratio were also within normal ranges. All biochemical tests were also normal. Bilateral anterior packing (Merocel Medtronic Xomed, Jacksonville, FL, USA) was placed in both nostrils to apply extra pressure and to stop recurrent bleeding. After 48 hours, the nasal packing was removed. The patient was admitted to hospital one day later due to massive nasal bleeding from the left nasal cavity. Bilateral nasal packing was re-applied again. Forty-eight hours following the second discharge, the patient was again admitted with a recurrence of nasal bleeding.

Interviews with family members revealed the patient's 5-year addiction to heroin via the nasal route, and the continued nasal

• Received June 19, 2009

Accepted after revision August 29, 2009

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use of heroin after removal of the nasal packing. Nasal bleeding had recommenced after nasal heroin use.

Upon admission, the patient's hemoglobin level was 9 g/dL. Massive nasal bleeding occurred during the first day of hospitalization and the hemoglobin level decreased to 6.1 mg/dL. The patient received a blood transfusion and was operated on to halt bleeding. During operation, nasal endoscopy revealed bleeding points in the anterior and posterior regions of the left nasal cavity. There were multiple mucosal capillar hemorrhages on the left lower concha and septum. Bleeding was stopped by electrocautery. Anterior and posterior nasal gauze packing were placed to halt the blood leakage that remained following electrocautery. The post-operative hemoglobin level was elevated to 9.6 mg/dL. On hematological examination, no bleeding abnormalities were evident. At 72 hours post-operatively, the nasal gauze packings were removed. No bleeding was evident during a 48 hour follow-up. The patient was discharged, but was re-admitted for nasal bleeding following another episode of nasal heroin use. After anterior nasal packing and blood transfusion, the patient was referred for psychiatric consultation. Part of the treatment included anti-psychotic drugs. In the subsequent 2 months, during which the patient did not use heroin, no bleeding episodes occurred.

DISCUSSION

Epistaxis is classified as anterior or posterior on the basis of the location of the primary bleeding site. Hemorrhage is most commonly anterior, originating from the nasal septum. A common source of anterior epistaxis is the Kiesselbach plexus, an anastomotic network of vessels on the anterior portion of the nasal septum. Anterior bleeding may also originate anterior to the inferior turbinate, while posterior hemorrhage originates from branches of the sphenopalatine artery in the posterior nasal cavity or nasopharynx (6, 7). The causes can be local or systemic illnesses such as facial trauma, digital trauma, foreign body, nasal hemangioma, sinus neoplasm, juvenile angiofibroma, metastatic lesions, environmental irritants, substance inhalation, leukemia, hemophilia, anticoagulant medications, Vitamin K deficiency, or Von Willebrands disease (7). Our case had both anterior and posterior hemorrhage due to nasal heroin use.

Nasal cocaine or heroin use causes several nose pathologies. Nasal cocaine use can produce symptoms, such as frequent sniffing, sinus problems, diminished olfaction and nasal membrane irritation with nasal crusts or scabs and recurrent nosebleeds (8). Immune thrombocytopenia and resulting nose bleeds due to intravenous narcotic addiction has been described (9).

Heavy intravenous cocaine abuse can also produce cerebral hemorrhages. In one study, four young individuals with histories of heavy cocaine abuse occurring several hours to days before the development of acute symptoms of severe headaches, dis-

orientation and subsequent stupor were shown to harbor sub-cortical cerebral hemorrhages (10). Heroin use may result in cerebral vasculitis, and cocaine abuse can cause cerebral vasculitis with secondary ischemic stroke (10). Regular nasal cocaine use can cause cocaine-induced midline destructive lesions, which can be difficult to distinguish from nose limited Wegener's granulomatosis. These cases can present with mid-facial pain, epistaxis, nasal perforation, necrosis of sinus mucosa and positive anti-neutrophil cytoplasmic antibodies (11). Intranasal cocaine abuse may also cause significant local ischemic necrosis and destruction of the nasal and midfacial bones and soft tissue, leading to development of a cocaine-induced midline destructive lesion and bleeding (12). However, to our knowledge, there have been no reports of severe nasal bleeding associated with nasal heroin use.

Possible mechanism of epistaxis due to nasal heroin or cocaine abuse are preceding vasculitis resulting nasal hemorrhages as seen in cerebral bleeding. Also nasal irritation aggravates the nasal bleeding.

We herein reported severe life threatening massive nasal bleeding caused by intranasal heroin use that has not hitherto been reported in the English literature. Epistaxis due to nasal heroin use is a very rare situation but should be remembered in epistaxis cases.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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