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Epistaxis

Examination of hospitalized patients

by

PETER POULSEN (Aarhus, Denmark)

Throughout history, the reason for epistaxis has been surrounded by a certain mystery. Even Hippocrates considered nose-bleeding to be a substitute for menstruation among young people of both sexes, whereas Mohammed, in 1880, stated that epistaxis among old people was important, protecting them against 'bleeding brains' (Shaheen, 1979). Even today, the aetiology of nose-bleeding is uncertain, and the purpose of examination is to try to find out whether epistaxis requiring hospitalization may be caused by, or perhaps may be the first symptom of, some other disease, as for instance hypertension, bleeding anomalies or similar conditions, so that all patients should have a general check-up for such conditions. We have tried to determine, in the present study, whether there is an indication for the routine checking of bleeding parameters in all cases of epistaxis or whether these examinations should be offered only to selected cases.

Material and Method

The series is made up of 39 consecutive epistaxis patients, treated with tampons during the year from 1 January to 31 December 1981; their average age was 57 years (range, 18–86 years). The case records were studied for possible reasons for the nose-bleeding and for any newly diagnosed diseases in connection with the hospitalization. The interval mentioned was chosen in order to have an observation period that was not too long, but was still long enough for the data centre of the county to register the patients. The centre was asked whether the patients in question had been hospitalized in any other ward later and, if in the affirmative, under what diagnosis; furthermore, the patient's own doctor was contacted and asked whether the patient had visited him and, if so, for what reason. Finally, the results of the blood test were evaluated, with a view to assessing the value of taking them routinely.

Results

The average duration of hospitalization was six days and nights (range two to 14 days and nights). Thirty-two patients were treated with balloon packing and seven with gauze packing. The packs were removed after an average of three days and nights (range one to seven days and nights), and it was necessary to carry out the haemostasis under general anaesthesia in two patients. Table I shows previous diseases which are traditionally associated with epistaxis, and Table II diseases diagnosed during hospitalization or later. The minimum time of observation was nine months. Finally, all

From the Department of Otolaryngology, Vejle Hospital, Denmark.

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TABLE I

DISEASES TRADITIONALLY RELATED TO NOSE-BLEEDING, AND PREVIOUSLY RECOGNIZED AMONG 39 PATIENTS HOSPITALIZED FOR EPISTAXIS. SOME OF THE PATIENTS HAVE MORE THAN ONE OF THE DISEASES

Hypertension	7
Common cold	6
Consequences of an operation (e.g. removal of nasal polyps)	4
Trauma	4
Diabetes mellitus	2
Alcoholism	2
Cancer of the pharynx	1
Uraemia	1
Osler's disease	1
Polycythaemia vera	1
Anti-coagulant therapy	1

TABLE II

NEWLY DIAGNOSED DISEASES RELATED TO NOSE-BLEEDING, AMONG 39 PATIENTS HOSPITALIZED WITH EPISTAXIS

During hospitalization	
Hypertension	5
Leukaemia	1
Polycythaemia vera	1
At re-examination	
None	

patients had their haemoglobin levels estimated, and 15 showed signs of anaemia; however, only one patient (a patient with uraemia) had severe anaemia. Total and differential white blood cell counts were done, and the number of platelets, bleeding time, clotting time and prothrombin time were estimated on a number of patients. None of these tests revealed any unexpected disease without prior suspicion that something might be wrong.

Discussion and Conclusion

It has been suggested that hypertension has no relation to epistaxis, when out-patients and hospitalized patients are considered together (Petruson, 1974). However, if we remove from the present series those cases in which there were obvious reasons for bleeding, such as trauma, anti-coagulant therapy, pharyngeal cancer, polycythaemia, Osler's disease, diabetes mellitus and uraemia, we are still left with 10 out of 26 patients (38 per cent, with 95 per cent confidence limits of 20–59 per cent) with hypertension, the latter being defined as a blood pressure $\geqslant$160/100 at rest or being assumed to be present in any patient who has already started antihypertensive treatment. On the basis of extensive general medical examinations, it would be expected that 10–20 per cent of persons in the same age group would suffer from hypertension (Wilhelmsen *et al.*, 1973). Hence, there is a surplus of patients with hypertension in the present series. The reason for nose-bleeding among hypertensive patients with hypertonia may be that the blood vessels in the nose undergo the same changes as those in the retina; they may then result in a greater risk of rupture, due either to minor trauma or to increased pressure in the nasal vessels (Ibrashi *et al.*, 1978). These vascular changes will cause prolonged bleeding, as primary haemostasis by vaso-constriction is defective. Consequently, it is recommended that the blood pressure should be checked several times during the period of hospitalization in patients with epistaxis. With regard to the blood and bleeding parameters, it is recommended that only the haemoglobin should be measured as a routine, other tests being reserved for selected cases. Anaemia should be actively treated, as anaemia itself may make the sufferer more susceptible to a cardiac infarct. Finally, there were no patients who were later shown to have any disease of which the bleeding episode might have been the first symptom; and hence there is no reason to recommend a general check-up by the General Practitioner, except in those patients in whom there is an indication for it, as in hypertension, anaemia, or diabetes mellitus.

To sum up, it is recommended that hospitalized epistaxis patients should have their blood pressure checked several times during the period of hospitalization, and that their haemoglobin should be tested as a matter of routine; after discharge from hospital, check-ups by the General

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Practitioner need be recommended only for those patients in whom there has been demonstrated some related general condition.

Summary

Thirty-nine patients with epistaxis requiring hospitalization have been examined. Their average age was 57 years, and a relationship was found between hypertension and epistaxis in in-patients, in contrast to out-patients. Other possible general reasons for nose-bleeding have been discussed and, from studies of blood and bleeding, it would appear that it is only the haemoglobin which requires routine control.

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Address for correspondence:
Peter Poulsen,
Vestervang 39,
6 DK-8000,
Aarhus C,
Denmark.

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