CLINICAL RECORD

ETHMOIDAL EPISTAXIS NECESSITATING OPERATION —CASE REPORT

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THE following case of severe epistaxis is reported, as perhaps of some interest in view of the measures necessary to stop it.

On 2.9.43, Driver K., aged 23, was struck a glancing blow on the right side of the nose by a heavy tow-hook, which sprang back when the rope to which it was attached snapped. The skin was lacerated and he was dazed but not unconscious. Epistaxis was profuse for a few minutes, but it ceased spontaneously. He was admitted to a Camp Reception Station and later transferred to a Military General Hospital, where an X-ray showed a fracture of the nasal bones with slight backward displacement. There was an intermittent trickle of blood from the nose for three days, but this apparently gave rise to no anxiety and he was allowed up.

He was due for discharge from hospital on 9.9.43, but on the evening of the 8th, a profuse epistaxis occurred. The nose was plugged, morphia administered and he was returned to bed. No nasal bleeding was seen during the night, but the next morning he vomited a large quantity of old blood. When I saw him, for the first time, he was extremely pale, with a weak pulse of 140, and there was a considerable trickle of blood in the nasopharynx from the right side. The nasal plugging was removed, and a steady ooze was seen to be coming from the upper part of the right nasal cavity. Accurate location was impossible, but Kieselbach's area could be exonerated and it was thought that the middle meatus was probably the bleeding point. This area and the space between the middle turbinate and the septum were firmly packed with adrenalin gauze and bleeding was controlled. The next day (10.9.43) he was better and the pulse, although still rather weak, was 104. There had been no further nasal bleeding or vomiting, and removal of the nasal packing was commenced gradually. By afternoon this was completed, and was unaccompanied by recurrence of hæmorrhage. However, during the night brisk bleeding recommenced, which was again arrested by packing, and a whole-blood transfusion was started. The result of the blood count is not available, but the only abnormality shown was a severe secondary anæmia.

The opinion of a neuro-surgeon, Major Calvert, was fortunately available, as a fracture of the ethmoid bone appeared to be probable. Major Calvert elicited a history of head injury in 1937, when the patient was hit on the right side of the head by a brick, an injury which was considered to be of no significance at that time. A doubtful bruit was also heard over the right orbit, and in view of the possibility of a cavernous arterio-venous aneurysm eroding the sphenoid and leaking into the nasopharynx, an arteriogram was considered

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advisable. By now, post-nasal bleeding had recommenced and was considerable, but on continuous drip transfusion of whole blood the patient's general condition had improved.

Under local anæsthesia, the internal and external carotids on the right side were exposed, and thorotrast injected into the internal. An arteriogram showed a normal carotid tree, and it was decided to tie the external carotid in an effort to diminish the blood supply to the right side of the nose. This procedure failed to alleviate the bleeding in any degree, and it was now as brisk as ever. Since the hæmorrhage was therefore obviously ethmoidal in origin, the anterior and posterior ethmoidal vessels were exposed through the customary external ethmoid incision above the inner canthus. They were isolated without difficulty and appeared to be of normal calibre. There was no obvious fracture of the lamina papyracea, and the vessels were occluded by diathermy. This caused immediate cessation of the hæmorrhage, and there was no subsequent recurrence. The patient made an uneventful recovery and was discharged from hospital on 26.9.43. He received five pints of blood in all by drip transfusion. Examination of the nose and nasopharynx before he left hospital revealed no abnormality.

The literature at my disposal shows scant reference to ligature of the ethmoidal arteries for epistaxis, although it seems probable that this procedure must have been done often enough for an epistaxis occurring from the upper part of the nose failing to stop on simpler measures. It is a routine step in certain radical operations on the spheno-ethmoidal region. Goodyear quotes a case of intractable epistaxis, occurring nocturnally in a man of 74 with normal blood pressure. Malignancy was excluded and, under local anæsthesia, the ethmoidal vessels were tied by a similar approach to the one in the case reported here. The bleeding in Goodyear's case came from the medial wall of the middle turbinate, and the anterior ethmoidal artery was found to be abnormally large at operation. Bleeding stopped completely on ligature of the vessel.

This would appear to be a reasonable, safe and not too difficult procedure to adopt in a case of severe epistaxis from the upper part of the nose and not responding to less drastic means. In such a case, it is more logical to resort to dealing with the ethmoidal vessels before the internal maxillary or external carotid, as was done in the case reported here.

REFERENCE

GOODYEAR, H. M., 1937, *Laryngoscope*, xlvii, (February), 97-9.

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