Bleeding from the Right Colon Associated with Aortic Stenosis

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There is a controversy in medical opinion as to whether patients with aortic stenosis have an increased tendency towards gastrointestinal bleeding.

Over the years, several different observers have noted a clinical correlation between aortic stenosis and gastrointestinal bleeding of obscure etiology. This uncontrolled clinical observation was expressed in Letters to the Editor of the New England Journal of Medicine in 1958 (1, 2). In a retrospective study, Williams (3) in 1961 seemed to confirm this correlation. During the discussion of one of the case records of the Massachusetts General Hospital (4), Jacobson recorded his personal clinical observations on this point, although the case under discussion at that time did not turn out to be an example of this entity. An attempt to see if there was an increased incidence of gastrointestinal bleeding among patients undergoing surgical aortic valvular replacement, compared to mitral valve replacement, did not reveal any causal relationship between aortic valvular disease and gastrointestinal bleeding (5).

The recent experience of following, for six years, a patient who had continuous gastrointestinal bleeding of obscure cause, associated with severe aortic stenosis, and the fortuitous discovery, at autopsy, of the level of bleeding prompt the submission of the following case report.

CASE REPORT

JGM (SHMC No. 525-929), a 77-year-old man, was readmitted to the Springfield Hospital Medical Center in May 1969, because of recurrent melena.

His first episode of gastrointestinal bleeding had occurred 10 years previously, several months after a severe beating, at which time he received multiple lacerations of the scalp and a fractured petrous bone. The bleeding episode necessitated admission to a hospital; his hemoglobin level was 5.9 g/100 ml, and he required transfusion of 4 units of blood. Gastrointestinal X-rays showed only prominent folds in the antrum and duodenum, without definite ulceration. There was a past history of bronchitis and early pulmonary emphysema, as well as removal of a papillary carcinoma of the bladder. At the time of physical examination, his heart was noted to be enlarged to the left, and a rough systolic murmur was present in the aortic area. The second aortic sound was absent.

Eight months later, there was another episode of sudden melena, the hemoglobin fell to 7.2 g%, and transfusion with 5 units of blood was necessary. Although the upper gastrointestinal series and barium enema were negative at this time, a vagotomy and pyloroplasty were performed, on the assumption that he had a bleeding peptic ulcer. No ulcer was visualized at operation. A loud, rough, aortic systolic murmur with an associated aortic systolic thrill was also noted at this time, and the chest X-ray showed cardiac enlargement with left ventricular hypertrophy and pulmonary congestion.

Five months postoperatively, he was readmitted with tarry stools and a hemoglobin of 6.9 g/100 ml. The barium enema was negative, and the upper gastrointestinal series showed prominent folds in the duodenum and antrum. Because of the probability of a bleeding duodenal ulcer, a subtotal gastrectomy was performed, and a Billroth II
anastomosis was formed. Again, no ulcer was found at surgery.

Two months after this second operation, he was readmitted because of tarry stools and anemia. The previously described murmur was still present; this remained audible throughout his hospital course. On chest X-ray, calcification was noted in the area of the aortic valve (Fig 1). The electrocardiogram

![Fig 1A and B](image)

*Fig 1A and B.* Chest films showing moderate cardiac enlargement of left ventricular type. Lateral film shows significant aortic valve calcification. Also noted is mild cardiac failure with pulmonary congestion and traces of pleural fluid in fissures. Moderate pulmonary emphysema is demonstrated.