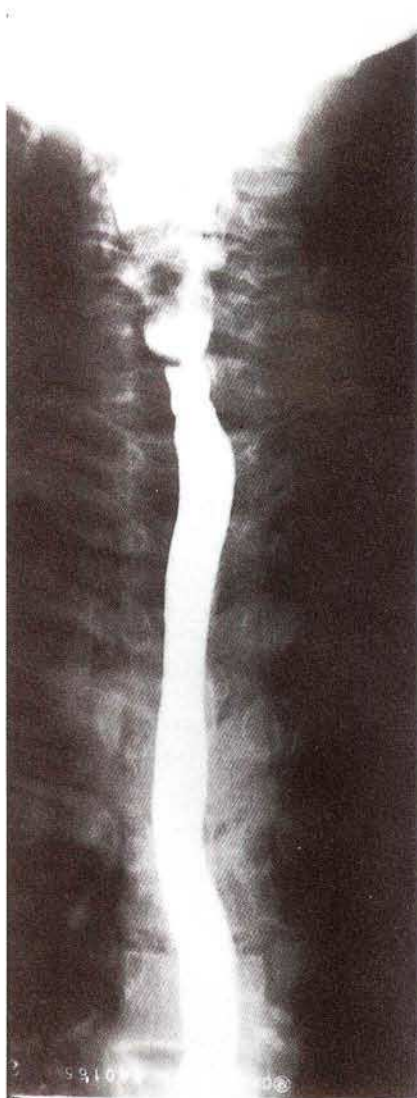


### Dilation Therapy of Upper Esophageal Webs in Two Cases of Plummer-Vinson Syndrome

Two patients with esophageal webs secondary to iron-deficiency anemia were successfully treated with Savary-Gilliard dilators.

**Case 1:** A 28-year-old woman was admitted in November 1992 with an eight-year history of progressive dysphagia and weight loss. She was underweight, pale, and in poor general condition; her temperature was 37.8 °C. The remainder of her physical examination was normal, with the exception of angular cheilitis. Laboratory examination revealed iron-deficiency anemia (serum iron 24 µg/dl, and serum iron-binding capacity 380 µg/dl). Pulmonary tuberculosis was diagnosed, based on chest radiography and sputum examinations, and was treated. A barium swallow revealed a benign narrowing at the hypopharyngeal region (Figure 1a). Endoscopy revealed a web obstructing the lumen to a diameter of 4 mm.

The web was perforated with a Savary-Gilliard dilator under endoscopic guidance. One year after treatment, the patient had gained more than 10 kg in weight, and she was able to eat everything. Endoscopic and barium swallow examinations of the esophagus 18 months after the dilation showed normal findings (Figure 1b).



**Figure 1a:** Barium swallow examination, showing esophageal web (case 1).

**Case 2:** A 32-year-old woman with a 14-year history of progressive swallowing difficulty and weight loss was referred to us in February 1993. At admission, she was able to eat only liquids. She appeared malnourished, underweight, and pale, and she had angular cheilitis. Peripheral smear and iron determinations were consistent with iron-deficiency anemia. A barium swallow examination showed two benign narrowings measuring 2.5 mm in the hypopharyngeal region, and endoscopy revealed a web.

The web was dilated with a Savary-Gilliard dilator under endoscopic guidance, and a guide wire was passed through the narrowing (Figure 2). With the guide wire remaining in place, the endoscope was withdrawn, a Savary-Gilliard dilator with a diameter of 5–15 mm was passed under endoscopic guidance, and the webs were perforated. Oral iron therapy was prescribed. Fifteen months later, the patient was asymptomatic. A barium swallow examination of the esophagus was normal.

Esophageal webs may be congenital or, as in our cases, can be acquired secondary to iron-deficiency anemia. In these cases, webs are resistant to iron therapy (1). Therapeutic perforation of the webs can be carried out either by endoscopy or dilators (2, 3). Savary-Gilliard dilators were used in the present study, with optimal therapeutic benefit in both patients. However, long-term endoscopic



**Figure 1b:** Barium swallow examination 18 months after successful treatment of the esophageal web (case 1).



**Figure 2:** A guide wire passing through the esophageal web under endoscopic guidance (case 2).

follow-up of such patients is required due to the increased risk of malignant tumor development.

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