

Plummer-Vinson (Patterson-Kelly) Syndrome

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A 41-year-old woman with menorrhagia presented with dysphagia and fatigue. An examination revealed koilonychia (Figure 1), cheilosis, atrophic glossitis, and conjunctival pallor. The hemoglobin level was 4.3 g/dL, the mean corpuscu-



FIGURE 1. Koilonychia as revealed upon examination.

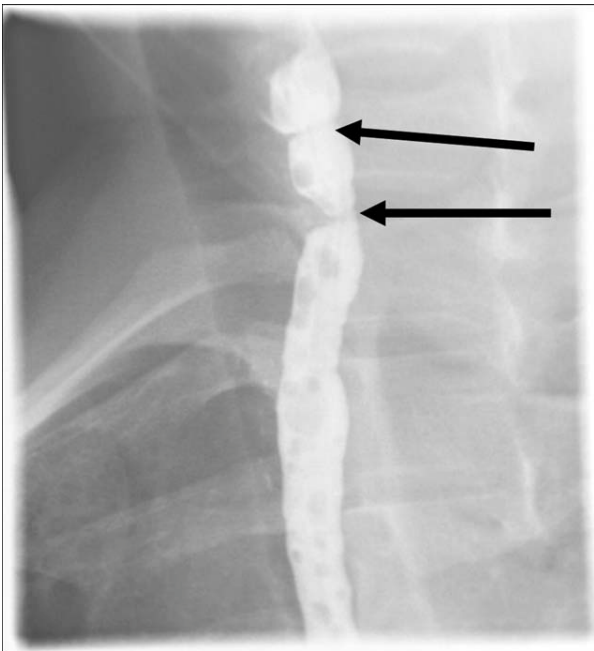


FIGURE 2. A barium esophagram demonstrated probably esophageal webs.

lar volume was 48.3, the iron level was 6 $\mu\text{g}/\text{dL}$, and the ferritin level was undetectable (<1 ng/mL). A barium esophagram demonstrated probable esophageal webs (Figure 2). Esophageal webs were confirmed by upper endoscopy (Figure 3) and successfully dilated with a balloon dilator sequentially at 8, 9, and 10 mm. She was transfused, treated for menorrhagia, and given ferrous sulfate and ascorbic acid (to improve iron absorption).

Koilonychia (or “spoon nails”) is derived from the Greek word for hollow nails. Spoon nails are associated with iron deficiency, thyroid dysfunction, trauma, chronic solvent exposure, and nail-patella syndrome, but they can be normal in infants.¹ Patterson and Kelly independently described the triad of iron-deficiency anemia, dysphagia, and upper esophageal webs in 1919 following Plummer’s (1912) and Vinson’s (1919) similar but less comprehensive descriptions of hysterical dysphagia.² Plummer-Vinson syndrome is rare, but precise prevalence data are unavailable.² Whether iron deficiency truly causes esophageal webs is debated, but iron deficiency is thought to weaken esophageal musculature and cause epithelial cell atrophy.² Autoimmunity and genetic predisposition are other putative causes. Dilation of esophageal webs is usually curative, although their association with an increased risk of upper alimentary cancers may justify surveillance endoscopy.³

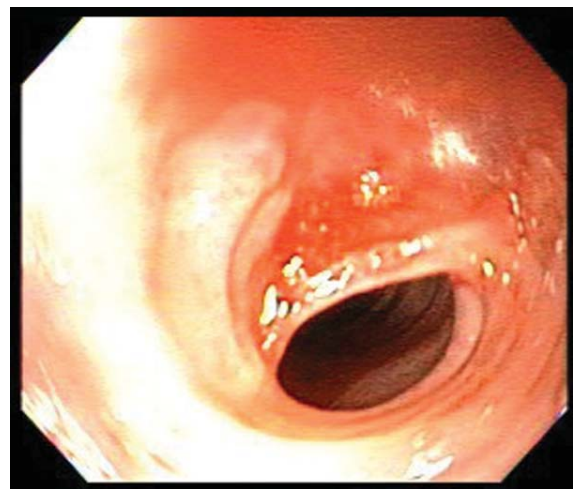


FIGURE 3. A barium esophagram demonstrated probably esophageal webs.

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