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Severe Thoracic Restriction Due to Intra-abdominal Lipomatosis

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A 65-year-old nonsmoker complained of progressive dyspnea of 3 years' duration. His exam was remarkable only for a tense, protuberant abdomen with little subcutaneous fat. Pulmonary function tests showed severe pulmonary restriction with normal airflows and diffusion. Total lung capacity (TLC) was 35% predicted, vital capacity (VC) 26%, and expiratory reserve volume (ERV) 9% of predicted. A chest X-ray revealed only elevation of the diaphragm. An echocardiogram was normal. A computed tomogram revealed extensive intra-abdominal but sparse subcutaneous fat (2). Common adulthood obesity is generally associated with mild reductions in TLC, VC, and ERV (3). In contrast, visceral lipomatosis can produce a more profound disturbance through encroachment upon the thoracic cavity when the abdominal wall is stretched to its compliance limit.

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Figure 1.

Infrarenal computed tomogram image shows (A) low density lipomatous tissue extensively infiltrating the abdominal cavity with bowel displaced anteriorly. Stretched mesentery is seen as linear radiations within the lipomatous tissue. Anterior subcutaneous fat (B) is of normal thickness (1).