

**ACROMEGALIC CHOLECYSTOMEGALY**

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***Cholecystomegaly demonstrated by radionuclidic and radiographic techniques is described in a patient with proven acromegaly who presented with a right upper quadrant mass. This entity should be considered in evaluation of abdominal masses in acromegalic patients.***

enlarged liver with an area of decreased activity involving the inferior medial aspect of the right lobe (Fig. 2, left). Because of the site of the defect, an abnormality of the gallbladder was considered and <sup>131</sup>I-rose bengal was administered to the patient. Scintigraphs obtained at 40 min (Fig. 2, middle)

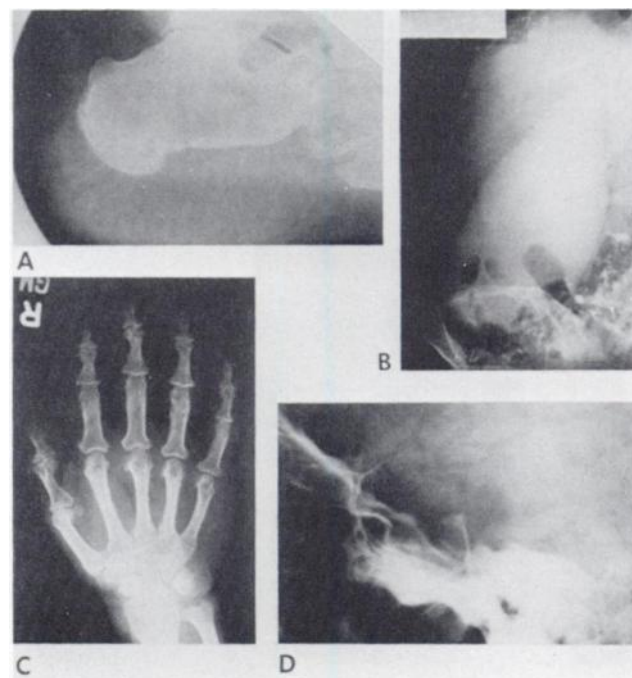
Although visceromegaly is commonly found in patients with acromegaly, the gallbladder is usually not considered as one of the enlarged organs. We have recently evaluated a patient with documented acromegaly presenting with a right upper quadrant mass demonstrated by scintigraphy to be a grossly enlarged gallbladder. Although distention of the gallbladder was mentioned in the monograph on acromegaly by Cushing and Davidoff, we have been unable to find a recent demonstration of this entity which we have named acromegalic cholecystomegaly nor has this entity previously been evaluated by radionuclidic or radiographic techniques (1).

**CASE HISTORY**

This 65-year-old female was first seen at the age of 40 with a 6-year history of amenorrhea, blurred vision, headaches, and progressive enlargement of the hands, feet, tongue, and lower lip. X-rays at the time of initial evaluation revealed an enlarged sella turcica with thinning of the posterior clinoids and tufting of the terminal phalanges of the hands and feet (Fig. 1A, C, D). The diagnosis of acromegaly led to irradiation of the pituitary fossa. Growth hormone determinations and sequential radiographs over the past 25 years have revealed relative stability in her endocrine status.

Following an episode of atrial fibrillation, a thorough physical examination uncovered a right upper quadrant mass and the patient was referred for scintigraphic evaluation of this finding. Technetium-99m-sulfur colloid liver scintigraphy disclosed a markedly

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**FIG. 1.** (A) Heel-pad thickness measures 27 mm (normal range, 13–21 mm). (B) Oral cholecystogram reveals huge normally functioning gallbladder measuring 18 cm long and 9 cm wide. Post fatty-meal film revealed poor contraction of gallbladder. (C) Hand radiograph showing soft-tissue enlargement, abnormal sesamoid index, increased digital tuft with increased joint-space thickening of second metacarpal-phalangeal joint space. (D) Lateral skull film reveals enlarged sella turcica measuring 25 mm long × 17 mm deep, with double floor.

and at 3 hr following a fatty meal (Fig. 2, right) demonstrated a markedly enlarged gallbladder corresponding to the location of the defect seen on the liver scan. Subsequently an oral cholecystogram (Fig. 1B) confirmed a morphologically normal-appearing gallbladder measuring 18 × 9 cm. The gallbladder contracted slightly following fatty meal stimulation.

#### DISCUSSION

Visceromegaly is a prominent feature of acromegaly. Autopsy studies have confirmed an abnormal increase in the weight and dimensions of the kidneys, heart, spleen, liver, lungs, adrenal glands, pancreas, thyroid, parathyroid, and thymus (1-3). Visceromegaly was described in a 1927 publication by Cushing and Davidoff (1) although they were uncertain whether this was secondary to increase in the size of the cells or increase in the number. However, they felt visceromegaly was not due to the laying down of excess fat.

Hepatomegaly is commonly noted at autopsy in acromegalics but its detection by physical examination is not as common (1,3). In a series of acromegalic patients, Preisig, et al demonstrated five of seven acromegalics to have hepatomegaly by colloid photoscanning (4). Abnormalities of the gallbladder were not mentioned in this report. In the monograph by Cushing and Davidoff, a greatly distended gallbladder with a normal-appearing mucous membrane was observed in one of the autopsied patients. Moehlig described a distended gallbladder without stones and Osborne described a dilated gallbladder filled with stones which hung below the liver edge (5,6). Other reports of autopsies in acromegalics failed to make any notation of gallbladder changes (3,7-9).

The finding of an enlarged gallbladder in this patient was incidental to a routine physical examination. Utilizing <sup>131</sup>I-rose bengal as a complement to <sup>99m</sup>Tc-sulfur colloid liver imaging confirmed that the palpable right upper quadrant mass extending below the liver margin was an enlarged gallbladder. Although radiographic contrast agent and radioactive rose bengal appeared to concentrate in a normal manner, poor contractility occurred with fatty meals



**FIG. 2.** Liver scan (left) shows ovoid area of decreased activity involving inferior medial border of right lobe of enlarged liver. Sequential scans taken at 40 min (middle) and 3 hr (right) following injection of <sup>131</sup>I-rose bengal reveal sacular area of radioactivity whose shape and position correspond to large filling defect seen on liver scan. This represents enlarged gallbladder.

following the administration of both of these diagnostic agents.

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