Giant gallstone: A case report

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\textbf{A B S T R A C T}

\textbf{INTRODUCTION:} There is a high incidence of gallstones in the Chilean population.

\textbf{PRESENTATION OF CASE:} We report on a 57-year-old man who complained of abdominal pain in the right upper quadrant. Abdominal ultrasound indicated acute cholecystitis and a single, extremely large pear-shaped gallstone (16.8 cm long, and 7.8 cm at its widest point and 4.1 cm at its narrowest point). Its fresh weight (at operation) was 278.0 g and, after 4 years, its dry weight was 259.5 g. Emergency classical cholecystectomy was carried out successfully.

\textbf{DISCUSSION AND CONCLUSION:} We have been unable to find a report of a larger gallstone in the English or Spanish language medical literature.

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1. Introduction

As in all Andean countries, gallstones are common in adults in Chile,\textsuperscript{1,2} with an incidence of 20% in the general population, rising to 50% in adult women.\textsuperscript{3,4} Complications from gallstones are the second most common reason for hospital admission, and are associated with a high mortality.\textsuperscript{3} Although the causative factors relating to the development of gallstones are multiple, environmental and genetic factors play significant roles.\textsuperscript{5–7} Ethnicity is probably an important risk factor for gallstone disease in Chile.

2. Case report

The patient was a 57-year-old man, with type 2 diabetes and hypertension, who had been known to have an asymptomatic single giant gallstone for at least 10 years. He had undergone coronary artery bypass grafting for coronary atherosclerosis 2 years previously. He was admitted through the emergency room at Hospital Clínico de Viña del Mar in December 2004, with a 2-day history of progressively increasing abdominal pain in the right upper quadrant, associated with nausea and general weakness. At the time of admission, his medications consisted of glibenclamide, enalapril, and aspirin.

On examination, he was febrile, but hemodynamically stable. He was not jaundiced. The abdomen was tender, particularly in the upper right quadrant, where the gallbladder was palpable, with a positive Murphy’s sign.

Laboratory tests showed a white blood cell count of 17,000/mm\textsuperscript{3}, an erythrocyte sedimentation rate of 59 mm in 1 h, and a C-reactive protein of 48 mg/dL. Other blood tests (BUN, creatinine, glucose, AST, ALT, GGT, bilirubin, and alkaline phosphatase) were normal. Abdominal ultrasound demonstrated a thickened gallbladder wall and a single giant pear-shaped gallstone (estimated initially to be approximately 17 cm long \times 10 cm at its maximum width and 5 cm at its minimum width). No abnormality was detected in the biliary tract, and there was no intra-abdominal collection of fluid.

Classical cholecystectomy was carried out as an emergency on the day of admission. At operation, the findings of abdominal ultrasound were confirmed, but the final measurements of the gallstone were 16.8 cm long, and 7.8 cm at its widest point and 4.1 cm at its narrowest point (Fig. 1). The patient did well postoperatively, and was discharged in good condition on the fifth day.

Histological examination of the gallbladder showed acute cholecystitis, with no sign of malignant neoplasia. Qualitative chemical analysis of the gallstone indicated a mixed type gallstone containing cholesterol, bilirubin, and calcium salts.

3. Discussion

We report this case of giant gallstone because we have been unable to find a report of such a large gallstone in either the English or Spanish language medical literature.\textsuperscript{8–13} To our knowledge, the largest gallstone reported hitherto – considered to be congenital by the authors – was one of 18 cm length, but only 4 cm in maximum width, which is smaller in volume and weight than the (acquired) gallstone reported here.

In our patient, cholecystectomy was indicated and had been advised many years earlier, but the patient did not wish to undergo
the surgical procedure because at that time (i) he remained asymptomatic and (ii) he suffered from coronary artery disease (for which he subsequently underwent surgical revascularization). His reluctance to undergo an elective operation resulted in him finally having to undergo a high-risk operative procedure as an emergency.

Those of Amerindian ethnicity are well-known to experience a high incidence of gallstones,1,2 though the exact reasons for this are uncertain. The high incidence of gallstones in the general population of Chile and other Andean countries may well be related to the presence of Amerindian genes in the population.3–7

A relationship between gallstones and coronary artery disease has been reported,14,15 probably because both diseases have common risk factors, such as smoking, physical inactivity, diet, obesity, hyperlipidemia, low serum high density lipoprotein–cholesterol, and abstention from alcohol.16–21 However, there is no evidence to indicate that the presence of coronary artery disease is itself a factor in the development of gallstones or vice versa.22

Conflict of interest statement

None.

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None.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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