

## Astronomically high CA 19-9 in a patient with a benign lesion



**To the Editor:** The carbohydrate antigen (CA) 19-9 level (normal reference range 0 - 37 kU/l) has been used as a tumour marker for malignancies of the hepatobiliary tract and pancreas, and is also known to be elevated in several benign biliary conditions.<sup>[1]</sup>

Moderately high values are seen in benign disease, but levels in the thousands are considered to indicate a malignant lesion.<sup>[2]</sup> A value of 5 000 - 16 000 kU/l is considered to be very high or extremely high.<sup>[3-5]</sup>

A 70-year-old woman with a previous history of laparoscopic cholecystectomy and hysterectomy presented to us with abdominal pain (right upper quadrant) and jaundice (bilirubin level 5 mg/dl) of recent onset. An ultrasound scan of the abdomen showed hilar obstruction, and hilar cholangiocarcinoma was suspected. A computed tomography scan of the abdomen showed a suspicious 3 cm hilar mass and dilatation of the intrahepatic biliary radicals, while the common bile duct (CBD) was not seen. A diagnosis of cholangiocarcinoma was again considered. The CA 19-9 level was astronomically high at 77 980 kU/l, and this figure was confirmed in our National Accreditation Board-accredited laboratory. Endoscopic retrograde cholangiopancreatography (ERCP) showed a choledochal fistula and CBD packed with stones, which were later cleared. The patient's symptoms improved and her bilirubin level returned to normal, so she was discharged with a plan for further follow-up. Three weeks later, her CA 19-9 level had fallen dramatically to 62.8 kU/l. A repeat ultrasound scan showed pneumobilia with no biliary dilatation or mass. Magnetic resonance imaging was planned but not done on the grounds of cost. On further follow-up 6 weeks later, the CA 19-9 level had dropped still further to 15.9 kU/l, and the patient continued to be free of symptoms.

We have never seen such an elevated CA level fall so dramatically to normal after ERCP. Practitioners should be wary of astronomically high levels of CA 19-9, which are usually considered diagnostic of biliary malignancy but can be seen in benign conditions.

**Nitin A R Rao**

*Department of Surgical Gastroenterology, MS Ramaiah Memorial Hospital and Medical College, Bangalore, India*  
nitrao@gmail.com

**B S Satyaprakash**

*Department of Gastroenterology, MS Ramaiah Memorial Hospital and Medical College, Bangalore, India*

### REFERENCES

1. Ong SL, Sachdeva A, Garcea G, et al. Elevation of carbohydrate antigen 19.9 in benign hepatobiliary conditions and its correlation with serum bilirubin concentration. *Dig Dis Sci* 2008;53(12):3213-3217. [<http://dx.doi.org/10.1007/s10620-008-0289-8>]
2. Clarke T, Matsuoka L, Jabbour N, et al. Gallbladder mass with a carbohydrate antigen 19-9 level in the thousands: malignant or benign pathology? Report of case. *Surg Today* 2007;37(4):342-344. [<http://dx.doi.org/10.1007/s00595-006-3377-4>]
3. Korkmaz M, Ünal H, Selçuk H, Yilmaz U. Extraordinarily elevated serum levels of CA 19-9 and rapid decrease after successful therapy: A case report and review of literature. *Turk J Gastroenterol* 2010;21(4):461-463.
4. Sheen-Chen SM, Sun CK, Liu YW, et al. Extremely elevated CA19-9 in acute cholangitis. *Dig Dis Sci* 2007;52(11):140-142. [<http://dx.doi.org/10.1007/s10620-006-9164-7>]
5. Robertson AG, Davidson BR. Mirizzi syndrome complicating an anomalous biliary tract: a novel cause of a hugely elevated CA19-9. *Eur J Gastroenterol Hepatol* 2007;19(2):167-169. [<http://dx.doi.org/10.1097/MEG.0b013e3280122879>]

*S Afr J Surg* 2013;51(4):151. DOI:10.7196/SAJS.1813