Minimally Invasive Surgery for the Treatment of Liver Hydatid Disease: Something Has Changed

TO THE EDITOR—It is widely known that the most common human hydatid disease (cystic echinococcosis) is endemic in several Mediterranean regions, the Middle and Far East, and South Africa. Nevertheless, it is becoming increasingly common also in westernized countries worldwide, where it should be considered an emerging public health issue [1, 2]. This leads to the need for physicians to be more aware of its features, in terms of clinical presentation and management options.

The choice of an appropriate treatment depends on several factors, including radiological features, localization, size, and complications of the cysts [1]. Although substantive advances have been achieved with regard to medical and percutaneous management of liver hydatidosis [3], surgery is still considered a main option to completely and immediately eradicate the disease [1, 2, 4]. However, liver hydatid disease may be surgically treated using a number of methods. It is well known that radical techniques elicit better outcomes, with lower recurrence rate and complications related to the residual cavity [2, 4]. Nevertheless, radical procedures, such as total pericystectomies or partial hepatic resections, are historically associated with a significant rate of perioperative complications [2, 4].

Approximately 2 decades after its original appearance, the use of minimally invasive methods for hepatic surgery is becoming more widespread, largely due to increased experience in laparoscopic surgery and availability of new technologies. Indeed, several reports comparing laparoscopic to open liver surgery have reported a significant decrease of intraoperative blood loss, reduced postoperative stay, and lower complication rate, while maintaining safety and effectiveness [5]. More recently, robotics has emerged as a most interesting and promising innovation in surgical practice, improving the handling of demanding procedures, such as those of hepatic surgery, with encouraging findings [6, 7]. With liver surgery in particular, several issues intrinsic to laparoscopy have been partially addressed by robotic systems that permit 3D imaging; increase the range of motion within the abdominal cavity; and augment surgical dexterity, affording excellent control of fine dissection maneuvers. In this regard, robotics may allow for managing deep intraparenchymal cysts, posterior cysts close to the vena cava, and cysts with thickened and calcified walls.

The published clinical experiences employing minimally invasive approaches for radical treatment of liver hydatid disease yielded excellent outcomes [5, 8]. Indeed, both laparoscopy and robotics can be performed safely with a low rate of complications while permitting an effective and radical therapy [6–10].

Historically, the high morbidity and mortality related to radical surgical procedures has been considered a major concern. With the introduction and development of modern techniques in the field of liver surgery, the associated morbidity and mortality have decreased dramatically. Advanced standard laparoscopy as well as robot-assisted laparoscopy now allow for radical and safe procedures with the benefits of a minimally invasive procedure. Thus, the decision whether to offer a patient with liver hydatid disease a percutaneous or radical treatment should be chosen according to how much has changed through the years.

Note

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