Liver hydatidosis in the present decade

Liver hydatidosis, a parasitic endemic disease affecting extensive areas in our planet, has been for decades a topic of debate in multiple medical and surgical forums because of its incidence, nonspecific symptoms, and diagnostic modalities, as well as the surgical procedures devised to solve this condition.

On the other hand, the relevant complications that may arise with disease progression and may involve multiple organs and neighboring structures causing disruption, migration, contamination, etc., turned this disease into a significant stigma within medicine, enrolling healthcare providers (veterinarians, internists, radiologists, surgeons, etc.) who for decades attempted to reduce its incidence, find better diagnostic modalities, control its spreading, and provide new therapies in order to achieve a more optimistic view of the problem.

In our country, endemic areas existed for many years where incidence and prevalence rates were high, which was reported in a 1987 publication including over 7000 surgically-treated liver hydatidosis cases, the largest series reported in the medical literature worldwide to that day (1).

New diagnostic procedures (ultrasounds, scanners), new anti-parasitic therapies (albendazole), and novel surgical procedures (PAIR, radical surgery) emerged over the years, which have clarified and significantly improved long-term results (2,3).

In the first report (1) of surgical treatment data, conservative surgery (marsupialization, lay-open, partial cystectomy, etc.) represented 65% of cases, and was associated with high morbidity. Mortality (2.3%) was similar for both radical and conservative surgery.

Several years later, in a smaller series of patients by Servicio Nacional de Salud hospitals, radical surgery was 72.7% and conservative procedures had boiled down to 28%. Mortality for conservative surgery persisted around 2% and was nil for radical surgery (4).

In the last few years, hydatidosis has considerably changes in many respects, from diagnostic strategies to treatment approaches (2,3), not forgetting new presentation forms and complications. The development of clinical therapy guidelines (5) and of evidence-based medicine (6) has spread among the medical community concepts that we all should bear in mind when suggesting an elective therapy for this condition.

New diagnostic modalities (ultrasonography, 3D scanner, MRI, ability to assess liver function, etc.) have led to new considerations and added accuracy to both cyst and liver functional assessment, providing new ideas for effective treatment. In this respect, this same issue of our Journal includes a retrospective study assessing the possibility of leaving selected (asymptomatic) liver cysts untreated with only follow-up (7). As it is a retrospective, observational review, its scientific value is hardly relevant given its limitations and small number of patients; however, it represents an interesting viewpoint to be considered in a near future.
Medical treatment with antiparasitic drugs (albendazole or derivatives), while initially endorsed with substantial interest has provided no significant benefits, and potential serious complications (liver toxicity, bone marrow aplasia, etc.) greatly restrict its use (8-10).

Similarly, the fact should be borne in mind that serious complications secondary to chronic, prolonged hydatidosis have emerged in recent years, including secondary biliary cirrhosis, secondary biliary sclerosis, cholangitis, Budd-Chiari syndrome, and postnecrotic cirrhosis, which have subsequently needed wide resective surgery or even a liver transplant (11).

What is the role of laparoscopic surgery in the management of hydatidosis? It was initially highly promising but expectations set in early reports could not be corroborated afterwards (12-15). On the other hand, conservative surgery or PAIR (Puncture, Aspiration, Instillation, Re-aspiration) has not improved outcomes, and morbidity and mortality remain similar to those reported during the 1980s (16-18).

Our crucial question should be “Which therapy would be most appropriate and effective for liver hydatidosis in the upcoming decades?

Our answer is straightforward in reference to countries where modern, advanced medicine is practised, and where specific issues are treated by expert groups obtaining outstanding benefits. To this day surgery is the most effective treatment, and radical surgery (total cystectomy, hepatectomy) is the modality yielding the best results (19).

Regarding liver diseases, a high number of hospitals have medico-surgical hepatology units that satisfactorily solve conditions such as chronic hepatitis, liver tumors, etc., using surgical approaches where huge liver resection (hepatectomy, trisegmentectomy, etc.) entails no or little morbidity and mortality (20,21) based not only on refined surgical techniques but also diagnostic tests (volume CT, MRI, angiography, etc.) that allow thorough knowledge regarding lesion size, location, and relations to intrahepatic vascular and biliary structures, as well as liver function. The above leads to a significant decrease in postoperative morbidity, as evidenced by a number of scientific papers (20-22). The clearest example of reduced morbidity in liver surgery is living-donor liver transplantation, where a liver portion (usually from a relative) is transplanted to a receiver. Donor hepatectomy entails no secondary problems in most cases.

If we translate these data into liver hydatidosis, an obvious question emerges: “What barriers prevent this condition from being managed in liver units?

There is logically no contraindication except in patients with other concomitant diseases rendering wide resective surgery a contraindication (22).

Conservative surgery (partial cystectomy, puncture aspiration, PAIR, etc.) retain a substantial morbidity, which is reflected not only by worse outcomes with higher relapse rates, but also by long-term complications that may jeopardize patient quality of life.

Therefore, in our view a patient with liver hydatidosis should be studied using the appropriate tests to reach an accurate diagnosis in terms of size, location, etc., allowing insight into the liver’s functional capacity (ultrasounds, CT, MRI), and then undergo radical surgery, if possible by an expert team.

To conclude, it should be remembered that this proposal must be supported not only with medical aspects but also from an ethical standpoint, and perhaps the criminal liability often involved in current medicine.

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REFERENCES


