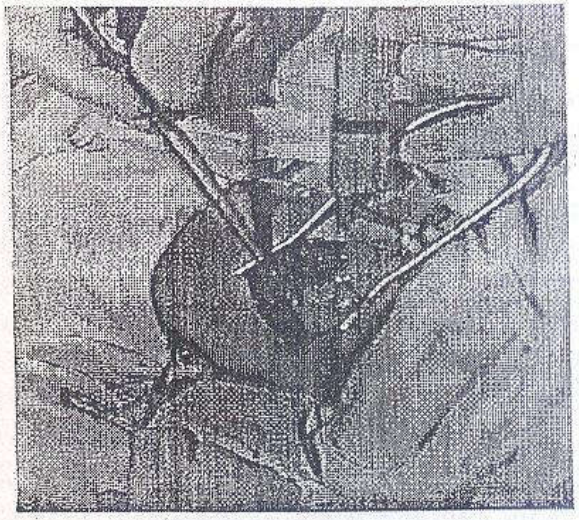
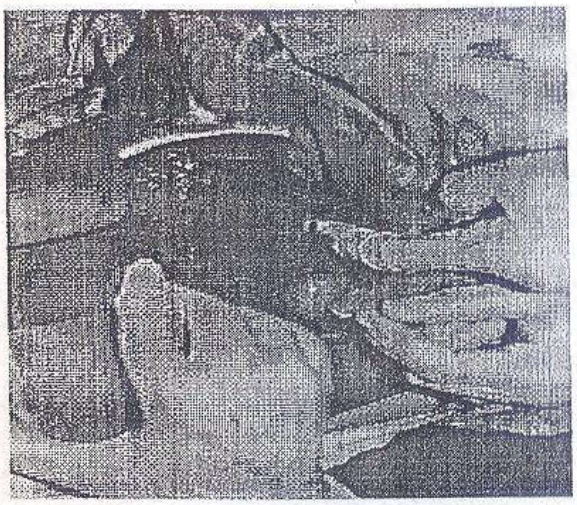
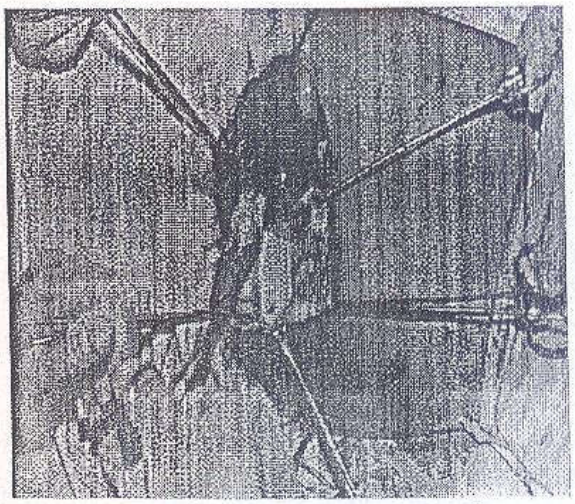
Simple cyst lined by cuboidal epithelium

Histology

Cystadenoma lined by Psuedostratified epithelium with mucous producing cells







DISCUSSION:

Up to 5 % of the population have one or more hepatic cysts , with sharp rise in incidence with age . The vast majority are simple , asymptomatic and require no treatment .PCLD is presumed to exist when the whole organ is involved with cysts (2) . Hydatid disease is a common health problem in Turkey and middle east . It should be included in differential diagnosis of all patients presenting with a cystic mass in the liver (16) .In the United States as well as in most of European countries the disease is an uncommon disease(17) . Hansman *et al.* , (3) treated 46 patients with hepatic cysts along 16 years and found that the vast majority of cysts are simple and 4.3 % (2/46) are hydatid . Ammori *et al.* (18) managed 60 consecutive patients with cystic liver disease along 7 years and found that only 6.4% (4/60) are hydatid . On contrary to this observation, hydatid cysts represented 58% (18/31) of symptomatic hepatic cysts in our study with statistically significant difference in favor of rural areas versus urban areas (72 % & 28 % respectively) ($P < 0.05$) .Travelling to an endemic areas such as Iraq and Saudia Arabia did not statistically affect the incidence in our study (4/18 , 22.2 %) ($P > 0.05$) . In accordance with the data reported by Hansman *et al.* (3) and Ammori *et al.* (18) , hepatic cysts in our study were more common in females with female to male ratio (1.8: 1). Abdominal pain was the predominant symptoms in most cases (61.3 %) , and the right lobe affected in 71% (22/31) of cases .

Lai and wong (19) ,reported that preoperative diagnosis of hepatic cysts (simple versus others) is based on the identification of intracystic septations on both U. S and C.T scans. Their absence is 100 % predictive of a simple cyst. Neither HIDA scans nor ERCP were helpful in determining the type of cyst or in revealing the presence of biliary communication. In agreement with these reports, preoperative diagnosis of hepatic cysts in our study was made by combined ultrasonography & C .T scans and they were diagnostic in 97 % except for one case that detected at the time of other abdominal operation. ERCP was done in one case (3.2 %) with large solitary simple cysts. It failed in revealing the presence of biliary communication and the patient suffered from bile leak after open unroofing of his hepatic cyst.

In our study serological tests using ELISA showed that the serum total IgM maintained high levels only in patients , with hydatid disease (n = 18) . The same observation had reached by Bulut *et al.*, (20).

Most studies support the concepts that percutaneous simple cyst aspiration do nothing more than temporary relief of patients symptoms and ultimate recurrence is the role (17), (21). In our study , preoperative

simple cyst aspiration was done 5 times in 3 patients with simple liver cysts and one time in the single patient with PCLD to achieve temporary relief of patient's symptoms , however recurrent symptoms led to ultimate surgical intervention in the 4 patients.

Surgical strategy for treatment of hepatic cysts is depend on its type (18). In hydatid cysts controversies continue about the optimal treatment of the disease. Whereas some authors advocated percutaneous aspiration and ethanolamine injection in the treatment of univesicular and multivesicular hydatid liver cysts (6) , (22) , others concluded that surgical treatment of hydatid cysts either by open or laparoscopic surgery is essential for complete eradication of the disease (2) , (23) . In our study 2 procedures were done by open surgery : the conservative approach and cystopericystectomy. The conservative approach was applied in 16 out of the 18 cases of hydatid cysts (89 %) . It was safe procedure with no significant complications . Cystopericystectomy was done in 2 cases with calcified cysts (11%). Postoperative complication after cystopericystectomy recorded in one patient who developed subphrenic abscess, drained under C.T scan guidance and resolved without requiring re-operation . These data were in accordance with that reported in other series. Dawson *et al.* (10) and kune & Morris (24) recorded no complication with the conservative approach , however the recurrence rate was higher than cystopericystectomy but without statistically significant difference. Safioleas *et al.* (23) managed 204 patients with hydatid liver cysts by different surgical procedures and found that postoperative morbidity was mainly due to septic complication (30/204 , 14.7. (%)

The spectrum of surgical modalities of hepatic cysts is completed by the unroofing procedure .This technique is widely used in the treatment of simple liver cysts and PCLD aiming at preserving the liver tissue and minimizing post operative complications. It is conducted either by open or laparoscopic surgery(18) . In our study open unroofing was done in 8 cases with simple liver cysts (72.3%) and in the single case with PCLD, whereas laparoscopic unroofing was done in 3 selected cases (27.7 %) with solitary liver cysts in the anterolateral segment of the liver. There was no difference as regard to the postoperative complication rate between the 2 procedures (3.2 % in each).The mean operative time of laparoscopic unroofing was less than one hour and the median hospital stay was 2.5 days , however the numbers were too small to make a meaningful comparison with open unroofing .These results coincided with that reported by Hansman *et al.* (3). They recorded no complication with laparoscopic unroofing and concluded that laparoscopic unroofing of simple liver cysts is safe and as effective as open unroofing provided that symptomatic cyst is in

favorable location and operative principles are followed. The same results had reached by Katkouda *et al.* (2)

Biliary cystadenoma are rare (25) . Lewis *et al.* (26) , reported a series of 15 biliary cystadenomas . Nine of their patients had undergone previous operation or aspiration, all of these patients eventually required definitive re – section . They concluded that hepatic resection should be considered in treatment of cystadenomas . In our study partial hepatic resection aided by ultrasound dissector was performed in the single case of cystadenoma and neither complication nor recurrence were recorded.

As regard to the postoperative recurrences, confirmed recurrences "sonographic recurrences" were recorded in 8 cases (25.8%) (3 after conservative excision of hydatid cysts , 3 after open unroofing of simple liver cysts, one after laparoscopic unroofing of simple liver cyst, and one after open unroofing of PCLD. (Of these eight, 3 recurrent simple cysts expressed no symptoms yielding a symptomatic recurrence rate of (16.1%, 5/31). Our data agreed with that reported by Hansman *et al.* (3) . They reported a confirmed recurrence rate of 32% (8/28) for simple liver cysts operated by open and laparoscopic unroofing, and found that symptomatic recurrence is present only in one case after open unroofing (1/28 , 4.2 %) .For PCLD, they recorded equal rates of symptomatic and confirmed recurrence (100 % ; 4/4) and concluded that the final purpose of surgical treatment in PCLD is to reduce significantly the size of severe polycystic hepatomegaly and to provide long – term relief of symptoms. For hydatid disease no recurrence was recorded in their study . In another study done by Safioleas *et al.* (23) on 204 cases with hydatid liver cysts operated by different surgical procedures, 14 patients developed recurrent disease during long term follow – up of 50 months.

In our study, postoperative serum samples were taken at 1st week , 1st month , 6 months and 1st year after surgery from patients with hydatid disease in order to monitor remaining or recurrent cysts . Using ELISA, the total IgG levels decreased gradually to its normal level within one year after surgery in 13 patients with hydatid disease (72.2 %) and maintained high in the other 5 patients (27.8 %) . Three out of the 5 cases developed confirmed recurrences within the first year after surgery. This finding was in agreement with that reported by Bulut *et al.* (20) who concluded that ELISA is a reasonable method for early detection of recurrent hydatid disease .

CONCLUSION

Hydatid disease is a growing problem in our locality and hygienic measures should be followed in order to eradicate the disease . Conservative approach is an appropriate procedure in most patients with hydatid disease and immunodiagnostic study using ELISA is reasonable method for early detection of recurrent cases .Laparoscopic unroofing of simple liver cysts is safe with acceptable recurrence and complication rate provided the symptomatic cyst is present in a favorable location .Cystadenomas require complete resection to prevent recurrence and liver transplantation is a reserved option in patient with PCLD.

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الملخص العربى

علاج الحويصلات الكبديه بمنطقة سوهاج دراسة مستقبليه و استرجاعية

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تختلف طرق العلاج الجراحية للحويصلات الكبدية باختلاف أنواعها. فبينما يعتبر استئصال الجدار العلوي للحويصلة لتفريغها (Open unroofing) علاجا لبعض الأنواع ,فان الاستئصال الكامل هو الحل المثالي للبعض الأخر

الهدف

تعريف وتقييم الطرق العلاجية المختلفة للحويصلات الكبدية فى سوهاج

المرضى والطرق

فترة الدراسة: من مايو ١٩٩٥ الى مايو ٢٠٠٠

المكان: مستشفى سوهاج الجامعى, جامعة جنوب الوادى

طرق التشخيص:

١- الاشعة فوق الصوتية (التليفزيونية)

٢- الاشعة المقطعية

٣- الاختبارات المصلية باستخدام (ELIZA) والتى كانت ايجابية فى حالات الحويصلات الطفيلية فقط حيث تم استخدام IgM فى التشخيص و IgG فى المتابعة.

٤-الفحص الميكروسكوبى للنسيج المكون للحويصلة للتأكد من التشخيص بعد إجراء العملية.

المرضى: تمت الدراسة على ٣١ مريضا حيث وجد :

١- حويصلات طفيلية (Hydatid cysts) فى ١٨ حالة (احادية التكيس فى ١٣ حالة و عديدة التكيس فى ٥ حالات.

٢- حويصلات كبدية بسيطة فى ١١ حالة (حويصلة واحدة فى ١٠ حالات ومتعددة فى حالة).

٣ -كبد متحوصل (DLCP)فى حالة واحدة.

٤- ورم غدى حويصلى (Cystadenoma) فى حالة واحدة

طرق العلاج:

١- الحويصلات الطفيلية: تم عمل استئصال كامل للحويصلة فى ١٦ حالة واستئصال الحويصلة والنسيج الكبدى المحيط بها(Cystopericystectomy) فى حالتين

٢- الحويصلات الكبدية البسيطة: كانت الطريقة المستخدمة هى ازالة جدار الحويصلة العلوى لتفتيحها(Unroofing) اما بالجراحة التقليدية (٨ حالات) اوبمنظار البطن (٣ حالات)

٣- الكبد المتحوصل: ازالة الجدار العلوى للحويصلة لتفتيحها

٤- الورم الغدى المتحوصل: الاستئصال الجزئى للكبد

النتائج

١- نسبة حدوث الحويصلات الكبدية اكثر فى النساء (رجال الى نساء ٨و١ : ١) ، وتصيب الفص الايمن من الكبد ٧١% اكثر من الايسر، وكانت ألام البطن هى العرض السائد، وكانت الحويصلات الطفيلية الاكثر حدوثا

٢- معدل حدوث المضاعفات بعد العملية كان ١٦% ولكن بدون فروق احصائية مؤثرة بين طرق العلاج المختلفة حيث ثبت حدوث رجوع للمرض فى ٨ حالات من بينهم ٥ حالات كان رجوع المرض فيهم مرتبط بحدوث اعراض

٣-حدث انخفاض تدريجى فى IgG الى معدلاته الطبيعية خلال سنة من العملية فى ١٣ مريض (٢و٧٢) من حالات الحويصلات الطفيلية، الا انه قد ظل مرتفعا فى ٥ حالات حدث رجوع للمرض خلال فترة المتابعة فى ثلاثة منهم.

الاستنتاج

- يشكل مرض هيداتيد (Hydatid liver disease) مشكلة متنامية فى منطقة سوهاج ولابد من اتباع الطرق الوقائية للقضاء علية
- الشخيص المناعى باستخدام (ELIZA) يساعد فى الكشف المبكر لرجوع المرض
- إزالة الجدار العلوى للحويصلة ليفتيحها باستخدام منظار البطن (Laparoscopic unroofing) يعتبر طريقة آمنة للعلاج شريطة أن تكون الحويصلة فى مكان مناسب حيث ان نسبة حدوث مضاعفات من هذة الطريقة مقبولة
- علاج الورم الغدى الحوصلى (Cystadenoma) يحتاج الى الاستئصال الكامل له وزرع الكبد هو الحل المتبقى لعلاج الكبد المتحوصل(PCLD)

مجلة جنوب الوادى الطبية

جامعة جنوب الوادى

كلية الطب بسوهاج

العدد (٦) رقم (٢) يوليـــــو ٢٠٠٢