

A Retroperitoneal Hydatid Cyst Fistulized In A Right Colic Tumor: Rare Complication Of Hydatid Disease And Exceptional Association.

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Abstract: *The Fistulization Of Hydatid Cysts In Neighboring Organs Is A Known Complication, Especially Of Bile Ducts And Bronchi. Fistulization In The Hollow Organs Remains Rare. The Particularity Of Our Case Is The Rupture Of These Hydatid Cysts In A Colonic Tumor. We Report The Observation Of A 82-Year-Old Man, Splenectomized 5 Years Ago For A Spleen Hydatid Cyst, Admitted For The Management Of Right Hypochondrium Pain Associated To Melena. Both Biological And Imagine Explorations Showed A Peritoneal Hydatid Cyst Fistulized In A Right Colic Tumor. We Performed A Right Hemicolectomy Carrying The Fistulized Hydatid Cyst Followed By Adjuvant Chemotherapy.*

Keywords: *Hydatid Cyst. Colic Tumor. Fistulization*

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I. Introduction:

Hydatid Cyst (KH) Is An Endemic Parasitic Pathology In The Mediterranean Countries, The Middle East, China, Australia And Africa [1]. Compression, Surinfection And Perforation In The Bile Ducts Are The Most Common Complications Of Hepatic Hydatid Cyst Localization. Perforation In The Gastrointestinal Tract Remains Rare [2], Especially In The Large Bowel. We Report A Case Of Hydatid Cyst Fistulized In Colonic Tumor. The Review Of The Literature In MEDLINE (Searched By Pubmed), Google Scholar And Cochrane Library Have Shown That Our Case Is The First Case Reported In The World.

Case Report:

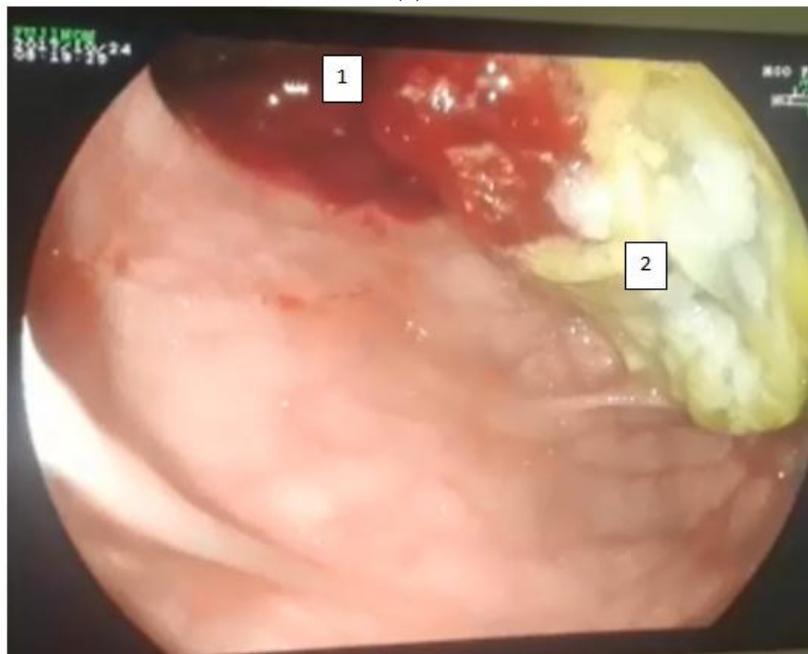
We Report The Case Of A 82-Year-Old Man Who Was Splenectomized 5 Years Ago For A Splenic Hydatid Cyst And Treated 2 Months Later For A Deep Vein Thrombosis, Who Was Admitted For A Painful Right Hypochondrium Associated To Melena. The Clinical Examination Found Out A Hard Mass Extending From The Right Hypochondrium To The Right Iliac Fossa. Biological Assessments Found Out A High Inflammatory Syndrome And Anemia, However, Hydatid Serology And Tumor Marker CEA Were Negative. Enhanced Abdominal CT Showed Multiple Intra Peritoneal KH, One Of Them Was Fistulized In An Irregular Thickening Of The Right Colon (Figure 1).

Figure 1: CT Scan Showing Fistula Between Hydatid Cyst And Colonic Tumor Thickening



Colonoscopy Showed A Large Tumoral Process Of The Right Colon That Was Bringing Hydatid Vesicles Typical Of Hydatid Disease (Figure 2). A Biopsy Was Performed .The Histological Type Of The Colonic Lesion Was A Moderately Differentiated Adenocarcinoma.

Figure 2: Image Of The Colonoscopy Showing The Colonic Tumor Process (1) And The Hydatid Limbs (2)



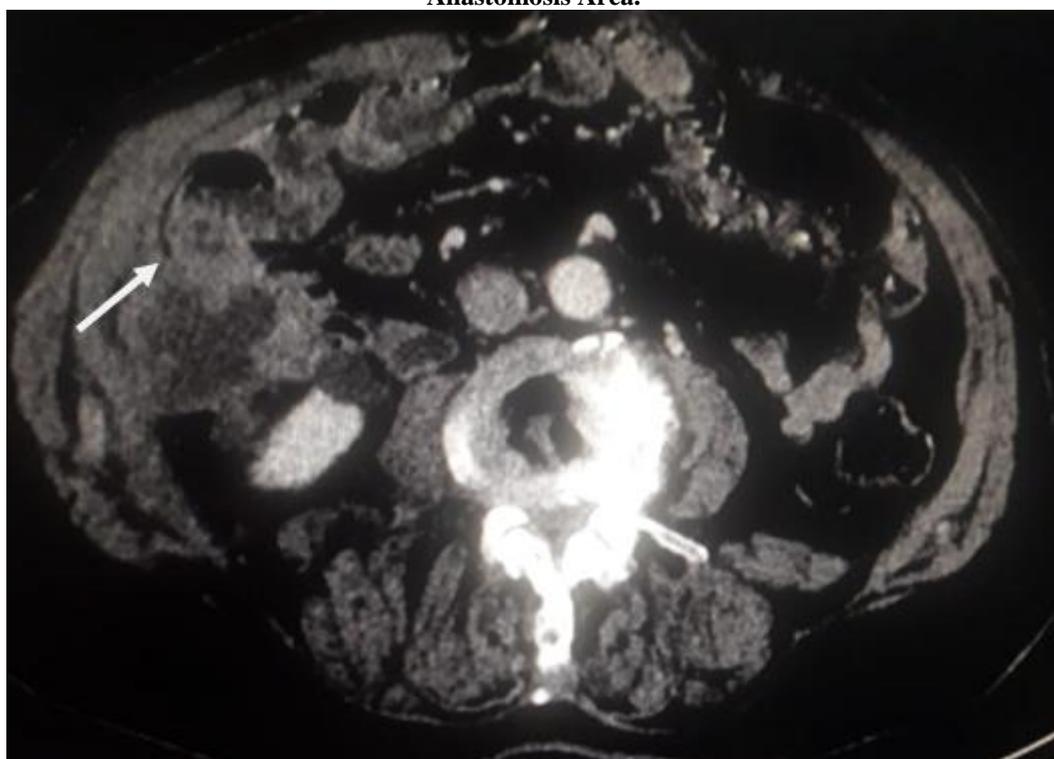
We Underwent A Medial Laparotomy And The Surgical Exploration Showed A Large Intra And Retroperitoneal KH Fistulized To A Right Colonic Tumor. A Right Hemicolectomy With Cyst Deroofing Were Performed Followed By A Transverse Ileocolic Anastomosis (Figure 3). The Post-Operative Outcome Was Uneventful. The Anatomopathological Study Of The Operative Specimen Showed A Mucinous Adenocarcinoma. Surgical Margins Were Negative R0. No Lymph Nodes Were Detected. It Was Classified Pt4nx.

Figure 3: Operative Specimen Of Right Hemicolectomy.



8 Cycles Of Capecitabine Were Taken As Adjuvant Chemotherapy With A Satisfying Evolution Till One Year. Since Then, He Complained Of A Median Incisional Hernia. A Control CT Scan Showed The Persistence Of Intra And Retroperitoneal Hydatid Cysts And A Doubtful Thickening In The Anastomosis Area Suggesting A Tumoral Recurrence (Figure 4).

Figure 4: CT Scan Control Showing Persistence Of Hydatid Disease And A Doubtful Thickening In The Anastomosis Area.



II. Discussion:

The Hydatid Pathology In Humans Is Secondary To The Ingestion Of The Eggs Of The Parasites *Echinococcus Granulosus* And *Echinococcus Multilocularis*. The Liver Is The Most Commonly Affected Organ With An Infestation Rate Of 60-75%, Then The Lung With A Rate Of 15%. Other Locations Are Possible And Are Rare Such As Spleen, Peritoneum, Kidneys, Brain, Bone, Skin Etc. [1]. It Is Characterized By Its Clinical Polymorphism And The Severity Of Its Complications. Surinfection And Perforation Are The Most Common Complications. [3] However, Hydatid Disease Can Be Life-Threatening For Patients As In The Case Of Anaphylactic Shock Secondary To Intraperitoneal Or Intrathoracic Rupture. [4]

Hydatid Disease Of Peritoneal Cavity Accounts For 10% To 16% Of All The Cases In The Literature, And They Mainly Result From The Rupture Of Concomitant Liver Cyst [3]. Asymptomatic Microruptures Or Leakage Of Echinococcal Fluid During Surgery Results In Peritoneal Contamination And Leads To The Peritoneal Disease [5]. Peritoneal Echinococcosis Is Not Usually Discovered Until Symptoms Develop. These Symptoms Result From Complications Due To The Enlarging Abdominal Cyst.

Extrahepatic Hydatid Disease Usually Remains Asymptomatic For Years. In Most Cases, Patients Present Themselves Only After The Cyst Becomes Large Enough To Palpate Or After Non Specific Symptoms Such As Digestive Discomfort Or Digestive Bleeding. The Combination Of Clinical, Biological And Radiological Findings Helps To Suspect This Diagnosis. Among All Imaging Modalities, Ultrasound Is Superior To Both MRI And CT In The Diagnosis Of Hydatid Disease With A Very High Sensitivity (88% To 98%) And Specificity (93% To 100%) [6].

Fistulization Of Hydatid Cysts In The Gastrointestinal Tract Is Rarely Reported In The Literature Whose Mechanism Is Due Either To Surinfection Of Cysts Or To An Underlying Pathology Of The Digestive Tract [7] As Occurred In Our Case Where The Right Colon Was The Seat Of Tumor Thickening.

This Type Of Fistulization Is Extremely Rare, Because It Seems That The Walls Of The Digestive Tract Offer A Major Resistance That Opposites To The Communication Between The Cystic Cavity And The Gastrointestinal Lumen, And Only A Few Cases Are Published In This Sense [8]. Fistulization Can Occur In The Stomach, Duodenum, Small Bowel, And The Colon, With A Rate Of 0.29% Of Cases Reported During Surgical Exploration Compared To All Perforated Hydatid Cysts [9]. The Particularity Of Our Case Is The Fistulization Of A Hydatid Cyst In A Colonic Tumor, A Fact That Has Never Been Reported In The Literature.

CT Scan And Colonoscopy Are Remaining Reliable For The Diagnosis Of This Complication [2] Despite A Negative Hydatid Serology, As It Has Been Shown In Our Observation. The Contents Of The Cyst Were Drained At The Level Of The Colon Because The Fistula Was Wide And The Colon Wall Was Weakened By The Tumor [Figure 1], Thus Allowing The Passage Of The Digestive Gas Inside The Retroperitoneal Hydatid Cyst [Figure 2]

The Surgical Management Of Disseminated Abdominal Hydatidosis Is A Real Challenge For The Surgeon. Total Resection Of The Cysts Is The Gold Standard. However, This Is Not Always Possible. Conservative Methods, Such As Cyst Enucleation, Deroofing Of The Cyst With Omentoplasty Or External Drainage, May Be Applied When The Cysts Are Infected Or Their Locations And Size Do Not Allow Their Safe Resection.[10]. In Our Case, The Therapeutic Management Should Take Into Account The Hydatid Cyst And The Colonic Tumor. The Surgery Of A Hydatid Fistula With The Digestive Tract Is Based On A Disconnection; Usually By A Suture [11], But Since There Was A Sub-Adjacent Colonic Tumor, A Right Hemicolectomy Was Performed Associated With Deroofing Of The Hydatid Cyst.

III. Conclusion:

Our Observation Confirms That This Infectious Disease Can Appear From The Start In Its Complicated Form And Can Be Fistulized In A Digestive Tumor. The Management Of A Fistulized Hydatid Cyst In The Digestive Tract Also Involves The Search For A Probable Cause Of Its Fistulization, Which Can Be Infectious Or More Rarely Tumoral. Management Must Be Taken In A Multidisciplinary Setting To Better Adjust Treatment [12].

References

- [1]. Beggs I. The Radiology Of Hydatid Disease. *AJR Am J Roentgenol.* 1985;145(3):639-48.
- [2]. Diez Valadares L, Sanchez-Pernaute A, Gonzales O Et Al.: Hydatidliver Cyst Perforation Into The Digestive Tract. *Hepatogastroenterol*1998, 45:2110-2114.
- [3]. Radford AJ. Hydatid Disease. In: Weatherall DJ, Ledingham JGG, Warell DA, Eds. *Oxford Textbook Of Medicine.* Oxford: Oxford University Press, 1982:5.442-5.444
- [4]. Sözüer EM, Ok E, Arslan M. The Perforation Problem In Hydatid Disease. *Am J Trop Med Hyg* 2002
- [5]. A Rare Complication Of Intraabdominal Hydatid Disease:Gastric Fistula And Recurrent Gastric Bleeding .Selim Yigit Yildiz, M.D.*, Huseyin Berkem, M.D., Suleyman Hengirmen, M.D. *The American Journal Of Surgery* (2010) 200, E59–E60
- [6]. Zaouche A. Liver Hydatid Surgery: About 2013 Case. *Tunis: Tunisian Association For Surgery;* 1994.
- [7]. Wen H, Aji T, Shao YM. Diagnosis And Management Against The Complications Of Human Cystic Echinococco Sis. *Front Med China.* 2010;4(4):394-8.

- [8]. Bougioukas IG, Courcoutsakis N, Korakianitis OS, Et Al. Liver Hydatid Cyst Perforated Into The Large Bowel: A Case Report. *Cases J.* 2009;2:6999.
- [9]. Spontaneous Fistulization Of Hepatic Hydatid Cyst Into The Duodenum: An Exceptional Complication . Daldoul S, Moussi A, Zaouche A. *J Coll Physicians Surg Pak.* 2013 Jun;23(6):424-6. Doi: 06.2013/JCPSP.424426.
- [10]. Diagnostics In Cystic Echinococcosis: Serology Versus Ultrasonography. Wuestenberg J, Gruener B, Oeztuerk S, Et Al. *Turk J Gastroenterol.* 2014;25:398–404
- [11]. Lo Casto A, Salerno S, Grisani M, Mastrandrea G: Hydatid Cyst Of The Liver Communicating With The Left Colon. *Br J Radiol* 1997,70:650-651.
- [12]. *Barabde M Et Al. Int J Res Med Sci. 2016 Apr;4(4):1260-1263. International Journal Of Research In Medical Sciences | April 2016 | Vol 4 | Issue 4*

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