



Commentary

Comment On Our clinical experience and follow-up results in hydatid cyst cases: A review of 393 patients from a single center

To the Editor;

We read the recent article titled "Our clinical experience and follow-up results in hydatid cyst cases: a review of 393 patients from a single center" published by Tercan and colleagues [1] with great interest. The authors stated that they presented the clinical features, interventional techniques, and anesthesia methods performed to the patients with hydatid cyst disease. We want to share our criticism regarding important points in this study.

Almost entire article is about the demographic and clinical characteristics of the patients with hydatid cyst disease and only limited amount of information regarding the methodology for intubation of the patients is provided. This is the only information about anesthesia techniques in this study. However, the authors of the present study are all from the anesthesia department and there are no surgeons enlisted as co-author. Publication of this mentioned article without the consent of the surgeons is a deontological problem because it is a known fact that anesthetists have no responsibility in the management and postoperative follow-up of the patients with hydatid cyst disease.

The authors state that 50 patients (12.9%) in the study were operated due to spontaneous perforation of the hydatid cyst. Our institution is a center of excellence for advanced hepatobiliary surgery which is also interested in hydatid cyst disease. We performed a thorough literature search, however, we have not come across any study reporting spontaneous perforation rates as high as the present study except one study published 1976 (Table 1) [2]. In our opinion, the authors have evaluated the cyst rupture reported in ultrasonography and abdominal computerized tomography reports as perforation of hydatid cyst. Hydatid cyst perforations are divided into three categories: contained, communicating, and direct rupture (free perforation) [3]. Radiologists report all of these as perforation of hydatid cysts. Researcher who are not experienced in hydatid cyst disease perceive all of these as free perforations. Misinterpretation of radiology reports by anesthetists who do not have clinical experience in patient follow-up is the main reason for the high perforation rates mentioned in this study. Besides, the value of the article would have significantly increased if the risk of recurrence, intraoperative, and postoperative prognosis of the patients with free perforation were compared to patients without perforation. Besides, the authors state that 60 patients received percutaneous alcohol injection and re-aspiration (PAIR) and 30 patients received laparoscopic surgery which means that the volume of the present study is comparable to the best case series reported in the literature (Tables 2 and 3).

The authors state that there is a correlation between the number of cysts and the requirement for follow up in the intensive care unit (ICU) that is summarized in Fig. 3A provided by the authors. On the other hand, in Fig. 3B that provided by the authors, multiple organ involvement was shown to be correlated with the need for a follow up in the

ICU. There is no medical reason to evaluate such a correlation. The need for ICU is dependent on the duration of operation, development of intraoperative complications, presence of preoperative comorbid diseases. Correlating the requirement of ICU with the number of cysts is erroneous. Besides, the r coefficient calculated by the authors shows that this correlation is very weak. Also, if the r^2 determinant coefficient is calculated, the value is 0.0196' which means 1.96% of the ICU needs are dependent on the number of cysts. If the results of the article had been consulted to a statistician, the authors would see that the results are not significant.

The authors have summarized their results regarding intraoperative complications and postoperative recurrences in Table 4 provided by the authors. The management of the postoperative recurrences and intraoperative complications are the responsibility of the attending surgeons. We have not encountered any anesthesiologist following the patients for the recurrence of a particular disease.

Analysis of the statistical methods of the study shows that the continuous variables are distributing normally because these variables expressed as mean \pm standard deviation. However, age, number of hydatid cysts and duration of ICU admission does not distribute normally because the standard deviations are greater than the means of the variables. Therefore, these variables should have been expressed as median (min-max; IQR) and the comparison statistics should have been an non-parametric test which is Mann-Whitney U test.

This study includes a cohort of about 400 patients who received surgery for hydatid cyst disease. The authors should have provided information regarding the adjuvant and neoadjuvant albendazole treatment which is the usual procedure in studies of this kind. For example, in the present study, the duration and type of adjuvant therapy in abdominal and thoracic hydatid cyst disease should have been stated. Furthermore, the authors should clarify whether they have used neoadjuvant anti-helminthic therapy in patients with pulmonary hydatid cyst disease. Furthermore, if they have used such a treatment, they should state if they have encountered any hydatid cyst perforation as a result of neoadjuvant albendazole treatment. Another point that needs emphasis is related with the complication rates following the pulmonary hydatid cysts because the current literature suggests that pulmonary hydatid cyst have higher complication rates following any operative intervention. However, in the present study, 82 patients were operated due to pulmonary hydatid cyst disease but no complication was reported which is not consistent with the current knowledge.

Another point that should be emphasized is related with the treatment modality that is applied. There is no information regarding the radical and conservative surgeries, the success rate of PAIR procedure, the biliary complication rates and the necessity of endoscopic retrograde cholangiopancreatography related with these complications. In

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Table 1
Literature review on intraperitoneal HC perforation.

First author	References (Appendix 1)	Country	Study Period	Total cases	Perforated cases	Perforation rate (%)
Tercan	1	Turkey	2013–2018	393	50	12.7
Tatli	2	Turkey	2012–2016	218	12	5.5
Toumi	3	Tunisia	1990–2015	1350	12	0.9
Aghajanzadeh	4	Iran	2004–2015	352	4	1.1
Kloppers ^a	5	S. Africa	2012–2017	22	4	18.1
Sakcak	6	Turkey	1996–2013	756	16	2.1
Symeonidis	7	Greece	1980–2010	227	6	2.6
Mouaqit	8	Morocco	2008–2012	306	14	4.6
Malik	9	India	2004–2005	69	2	2.9
Akcan	10	Turkey	1990–2008	372	28	7.5
Unalp	11	Turkey	2000–2009	368	21	5.7
Agayev	12	Azerbaijan	NA	484	6	1.2
Tekin	13	Turkey	1985–2005	700	14	2.0
Akcan	14	Turkey	1990–2005	347	27	7.8
Ozturk	15	Turkey	1979–2004	653	20	3.1
Derici	16	Turkey	1988–2005	306	17	5.6
Beyrouti	17	Tunisia	1990–2000	970	17	1.8
Puia	18	Romania	1993–2002	160	6	3.8
Kurt	19	Turkey	1995–2001	99	7	7.1
Larbi	20	Tunisia	1993–1999	302	15	5.0
Sozuer	21	Turkey	NA	242	21	8.7
Agayev	22	Azerbaijan	NA	280	2	0.7
Karydakos	23	Greece	1972–1992	421	4	1.0
Chen	24	China	1954–1990	907	50	5.5
Bilge	25	Turkey	1978–1990	226	1	0.4
Erguney	26	Turkey	1979–1989	328	7	2.1
Placer	27	Spain	1965–1985	471	15	3.2
Androulakis	28	Greece	1964–1984	1310	7	0.5
Dedenko	29	Russia	NA	231	35	15.2

The references list of the articles used in Table 1, Table 2 and Table 3 are given in the online supplementary material.

^a This case selected among HIV + patients.

addition, detailed information is needed regarding the recurrence rates following surgery for perforated hydatid cyst. In brief, at least five different studies on completely different topics such as pulmonary hydatid cyst disease, hydatid cyst perforation, laparoscopic management

Table 2
Brief literature review on PAIR procedure for HC management (PubMed Database; ≥10 patients).

First author	References (Appendix 1)	Country	Study Period	Case
Kaniyev	30	Kazakhstan	2017–2019	33
Butt	31	Pakistan	2007–2017	15
Akhan	32	Turkey	NA	40
Kaman	33	Turkey	2005–2015	23
Badik	34	Turkey	2008–2016	347
Popa	35	Romania	2014–2018	51
Kahriman	36	Turkey	2005–2015	190
Nayman	37	Turkey	2008–2013	374
Koroglu	38	Turkey	2005–2010	33
Cakir	39	Turkey	2011–2013	41
Akhan	40	Turkey	2007–2011	39
Rajesh	41	India	2007–2009	15
Yasawy	42	S.Arabia	NA	26
Gupta	43	India	2000–2009	52
Kahriman	44	Turkey	2008–2010	25
Giorgio	45	Italy	1992–2005	168
Kabaalioglu	46	Turkey	1994–2004	60
Zerem	47	Bosnia	1998–2003	72
Paksoy	48	Turkey	NA	59
Yagci	49	Turkey	1992–2003	140
Duta	50	Romania	1996–2000	51
Schipper	51	Netherlands	NA	12
Gavrillin	52	Russia	NA	28
Polat	53	Turkey	1994–1997	101
Aygun	54	Turkey	1992–1996	45
Giorgio	55	Italy	1988–1999	129
Odev	56	Turkey	1992–1998	61
Bosanac	57	Serbia	1989–1992	52

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Table 3
Brief literature review on laparoscopic surgery for HC management (PubMed Database; ≥10 patients).

First author	References (Appendix 1)	Country	Study Period	Case
Kaya	58	Turkey	2014–2016	17
Bayrak	59	Turkey	2008–2010	37
Chopra	60	India	2009–2016	41
Shrestha	61	Nepal	2013–2015	24
Bostanci	62	Turkey	2010–2014	14
Yagmur	63	Turkey	2013–2014	41
Jabbari	64	Iran	2007–2012	37
Nooghabi				
Samala	65	India	2008–2010	31
Jerreya	66	Tunisia	2008–2012	22
Abdelaal	67	Egypt	2010–2012	11
Jani	68	India	2007–2011	16
Tuxun	69	China	2005–2011	60
Senthilnathan	70	India	1997–2013	105
Li	71	China	2009–2013	15
Zaharie	72	Romania	1998–2008	59
Tai	73	China	2005–2010	46
Ramia	74	Spain	2000–2012	37
Rooh-ul-Muqim	75	Pakistan	2007–2010	43
Secchi	76	Argentina	1991–2007	47
Chen	77	China	2000–2005	104
Maazoun	78	Tunisia	2001–2004	34
Kapan	79	Turkey	1998–2003	44
Palanivelu	80	India	NS	66
Georgescu	81	Romania	1999–2003	24
Yagci	49	Turkey	1992–2003	30
Baskaran	82	India	1998–2002	18
Acarli	83	Turkey	1992–2000	52
Altinli	84	Turkey	1998–2000	13
Ertem	85	Turkey	1994–2001	48
Khoury	86	Lebanon	1993–1998	83
Seven	87	Turkey	1992–1998	23

The references list of the articles used in Table 1, Table 2 and Table 3 are given in the online supplementary material.

of hydatid cyst disease, PAIR for hydatid cyst disease, factors affecting postoperative biliary fistula can be prepared from the cohort of the present study; however, the authors have included these wide variety of patients in a single study and did not provide crucial information that would guide other researchers. This is mainly because all the authors are anesthesiologists who do not know the management of hydatid cyst disease.

More than 80% of the article word count is related with the surgical treatment of hydatid cyst disease, and all of the authors being anesthesiologists is a deontological issue. In our opinion, our correspondence should be published to note this fact. That is, there is no difference between patients with hydatid cysts and other patients from the perspective of the anesthesiologists. Only the risk of developing an allergic reaction due to intraoperative hydatid cyst rupture may have been relevant from anesthesiologists point of view; however, in it seems the authors have not reported these complications or these complications did not develop.

In conclusion, we are not against anesthesiologist being in the author list of the present study. However, we heavily criticize the absence of responsible surgeons (general surgeon, thoracic surgeon etc) and/or radiologist.

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Author contribution

Akbulut S and Sahin TT: Reviewed the literature and wrote the manuscript. Akbulut S and Sahin TT: Supervised the writing process and revised the manuscript.

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Sami Akbulut and Tevfik Tolga Sahin: wrote the manuscript. Sami Akbulut and Tevfik Tolga Sahin: Supervised the writing process and revised the manuscript.

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The authors declare that they have no conflict of interest about this letter to the editor.

Registration of research studies

1. Name of the registry: Not Applicable. Because this study is prepared as letter to the editor (comment)
2. Unique Identifying number or registration ID:
3. Hyperlink to your specific registration (must be publicly accessible and will be checked):

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Prof. Sami Akbulut, and Prof. Tevfik Tolga Sahin, are the guarantors for the present commentary and they take full responsibility for the comments and the auxiliary data presented in the commentary article.

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The following information is required for submission. Please note that failure to respond to these questions/statements will mean your submission will be returned. If you have nothing to declare in any of these categories then this should be stated.

Consent

This paper prepared as letter to the editor. Patients data were not used in this study. Therefore consent approval is not required.

Declaration of competing interest

No conflict of interest about this letter to the editor.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.amsu.2021.102818>.

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