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SCHOLAR JOURNALS



(CASE REPORT)



## Multiple and bilaterally pulmonary hydatid cystic present as metastas

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International Journal of Scientific Research Updates, 2023, 06(01), 115–117

Publication history: Received on 27 July 2023; revised on 08 September 2023; accepted on 11 September 2023

Article DOI: <https://doi.org/10.53430/ijsru.2023.6.1.0063>

### Abstract

Hydatid cyst is a parasitic infections of the humans that caused by echinococcus infection. This infection is considerable problem of public health. The most common locations in human body of a hydatid cyst are the liver (75%) and the lung tissue (15%) in the review of medical literature there was a few reports from bilaterally pulmonary hydatidosis which clinically mimics metastatic malignant tumors at initial clinical finding. Because of unusual presentation, the diagnosis with clinical presentations and CT-scan and CXR may easily be missed. For of this missed diagnosis problem, multiple and bilaterally hydatid cyst of lung should be in difrienciated diagnosis of others pulmonary diseases.

**Keywords:** Computed Tomography; Hydatid Cyst; Echinococcus Infection; Endobronchial

### 1. Introduction

Hydatid disease is a serious health problem in some countries like Iran, where it is endemic [1,2]. Although it may involve any organ, it most often affects the liver and the lungs tissue [1,3]. Hydatid disease mostly affects the liver (75%) and the lungs tissue (15%), and occurs only 10% in others organ [2-6]. About 60% of pulmonary hydatid cyst occur in the lower lobes of lungs [4]. Bilateral pulmonary hydatidosis accounts for 4% to 26.7% in of all cases [1,3] and multiple pulmonary hydatid cysts occur in 30% of cases [3,4]. The aim of this case study with unusual presentation, was to evaluate the clinical presentation, diagnosis, treatment and outcomes of multiple and bilaterally pulmonary hydatid cyst

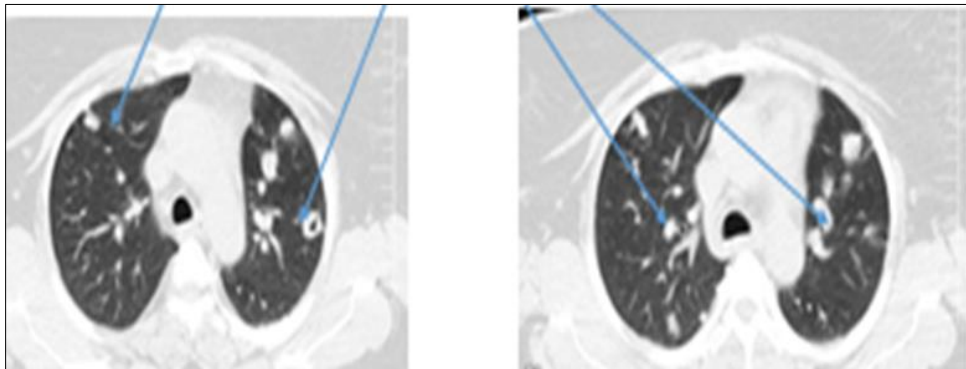
### 2. Case presentation

A 45 year-Old Iranian male patient presented with a two months history of fever, chest and abdominal pain, loss of appetite, weight loss, cough, night sweating and dyspnea was referred to our hospital. Physical examination revealed fever (39 centigrade), blood pressure 100/60 and coarse crackles at middle and lower area of both lungs. Abdomen was soft but a budging was seen in lower abdomen near the suprapubic region. Others organ, upper and lower extremity was normal. There was bilateral multiple nodular lesions at his chest X-ray. In hospital she takes ceftriaxone 2Gr and clindamycin 600mg twice daily. US of abdomen and pelvic was obtained and was normal. Computed tomography (CT) scan of the chest, abdomen with IV contrast was obtained and showed multiple cavitary and solid lesion in the both lung and the size of lesions were various in diameter

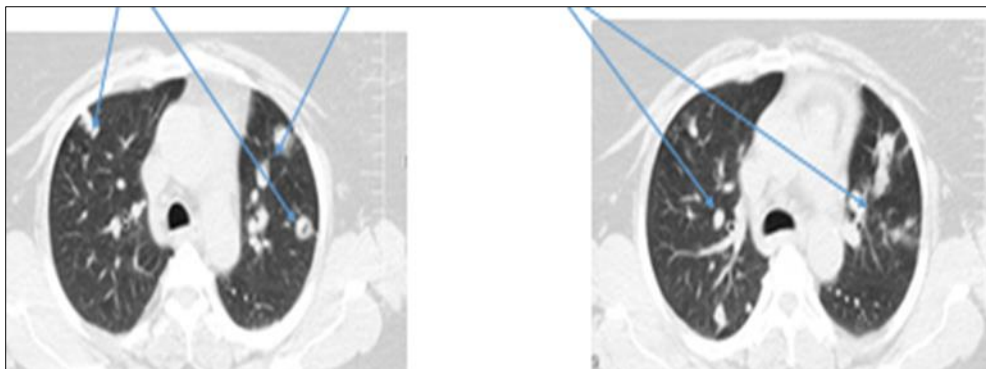
The lesions were located in the central and peripheral zone of both lungs (Figure 1). Radiologist finding and differential diagnosis was inflammatory lesion as Wegener granuloma, septic emboli, sarcoidosis and pulmonary metastasis from

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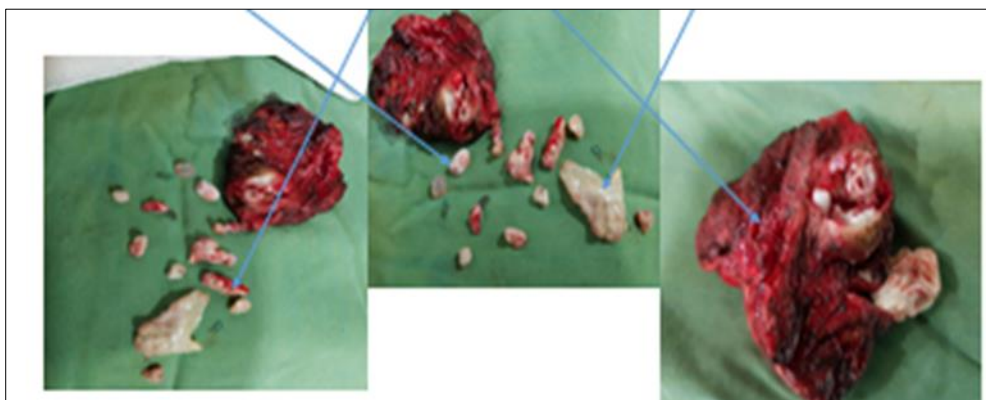
other organ(Figure 2). Two days after admission, fever dropped and general condition of the patient becomes better. All lab date was normal except (ESR=40(0–20mm/h.CRP=28(0–5mg/L), WBC=12000). Fibroptic bronchoscopy was performed. Endobronchial lesion was not observed and bronchial lavage was obtained, Pathology examination of the bronchial lavage was normal, all other biochemical tests (CEA, ACE, RF, CA-125, hydatid tests and rheumatological tests) were normal.. With left anterolateral thoracotomy at 4 thintercostal space, chest wall was opened multiple nodules was palpable the big one was resected as wedge resection, the specimen was opened, laminated membrane was exposed (Figure 3). Chest tube was inserted and chest wall was closed in layers. Second post operative day, Albendazole was started at a dose of 10mg/kg/day for three cycle of 28days with 14days interval. Pathologist's report was hydatid cyst of lung in all three specimens (Figure 4). Patient was discharged in good condition 5days postoperative in the six months follow -up time there was no increased the size of both pulmonary nodules.



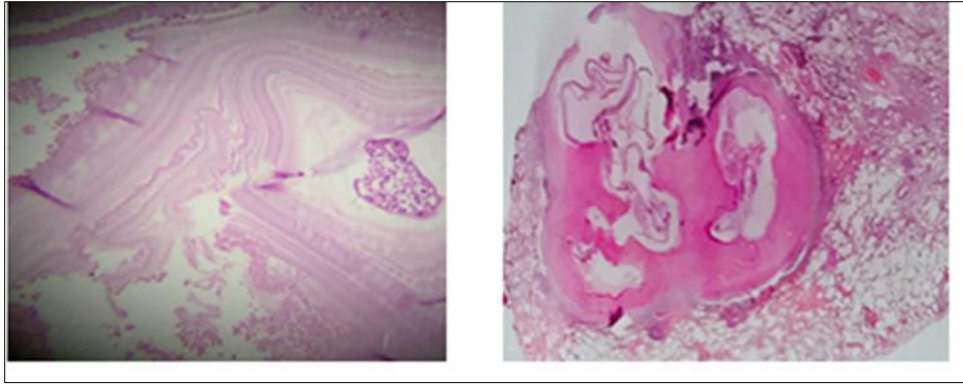
**Figure 1** Multiple nodules solid or cavitary lesions bilaterally



**Figure 2** Multiple nodules solid or cavitary lesions bilaterally in another view



**Figure 3** Post-operative specimen after open the removal lesions



**Figure 4** Pathology of lung and hydatid cyst, Microscopic examination shows inflamed pulmonary tissue with a hydatid cyst composed of a aminated

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### 3. Conclusion

Multiple bilateral pulmonary hydatid cysts are an unusual condition and should be included in the differential diagnosis of multiple bilateral pulmonary mass or lesions. For definitive diagnosis VATS or open lung biopsy are choice. The role of surgery is only for diagnosis.

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### Compliance with ethical standard

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

#### *Statement of ethical approval*

This case report approved by ethic comity of arya hospital

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