

原文題目(出處)：	Echinococcal cyst affecting the mandible Ann Maxillofac Surg 2015;5:115-8
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內文：

Introduction

Echinococcosis is a parasitic infection also called as hydatid disease or hydatidosis. Hydatidosis is a cyclo-zoonotic infection of the larvae form of *Echinococcus granulosus* (canine tapeworm). The majority of hydatid cysts are seen in the liver (65%) as most of the embryos are trapped within it. Infratemporal region is an unusual site for hydatidosis and has been sparsely reported in the literature.

Case report

General data

-35-year-old married female (poor socio-economic background)

-Chief Complaint: mild pain and pressure sensation on right side of temporomandibular joint (TMJ) area on mastication and opening and closing of jaws since 2–3 years. The associated pain was dull, localized, and aggravated on talking and taking food. She was unemployed and managed all domestic chores at home.

• Clinical finding

-Facial asymmetry:(-)

-Deviation:(+) deviation of jaw toward left side on opening and closing

-Mass:(+) painless, soft mass in the right TMJ area with egg shell cracking

-TMJ movements: diminished on right side

-Occlusion: WNL

-General health: WNL

-USG liver: WNL

-Plain posteroanterior view chest radiograph : WNL

Orthopantomogram finding

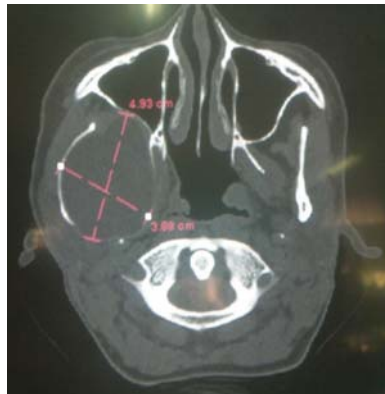
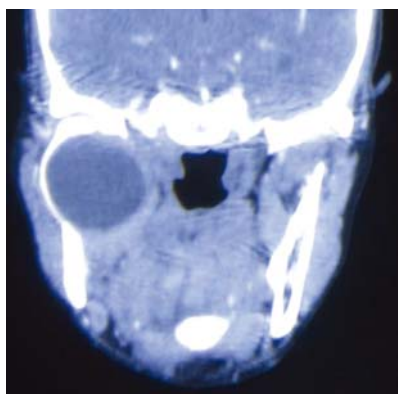
-ill-defined osteolytic lesion involving the ramus condyle unit of the right side

-size 3 cm × 1.5 cm

• Computerized tomographic scan finding

-well encapsulated fluid filled cystic lesion

-Size 4.9 cm × 3.8 cm



- The gross macroscopic specimen : two cystic cavities

- The outer: tough reddish-brown
- The inner: thin, slimy and fragile



- In histopathology, scanner view
- daughter cysts with scolex and germinal layers

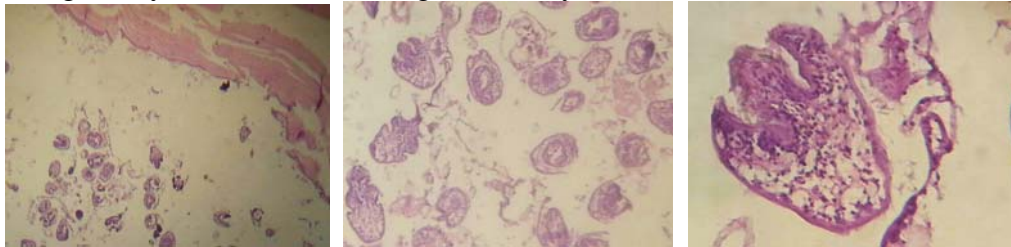


Figure 5: daughter cysts with scolex and germinal layers

Figure 6: $\times 10$ view showing daughter cysts with scolex and germinal layers

Figure 7: $\times 40$ view showing daughter cysts with scolex and germinal layers

Discussion

- (1) Apart from the present case there are only 3 other cases of echinococcal cyst of the mandible reported in the literature.
 - >echinococcal cyst has been reported to affect the mandible, neck, maxilla, pterygo-palatine fossa, infratemporal fossa, parotid gland, and base of the skull.
- (2) Humans acquire the disease accidentally due to close association with either the definitive hosts, like dogs, or intermediate hosts like sheep, goats, or through contaminated foods.
 - >the ova enter and hatch as embryo in the intestinal mucosa, migrate through the intestinal mucosa and enter the portal circulation. After portal circulation, they reach the pulmonary circulation and finally the systemic circulation.
- (3) These lodge within capillaries of various organs and invoke an inflammatory response of mononuclear cells and eosinophils.
 - >While many of them are destroyed, a few survive by forming a slow-growing, thick walled cyst inside which they divide.
- (4) The diagnosis of *Echinococcus* infection can be based on the clinical history, physical examination, diagnostic imaging, aspiration, and serologic test.
 - >the sensitivity of serologic tests is inversely related to the degree of sequestration of the echinococcal antigens inside cysts
 - >The indirect hemagglutination test is sensitive, but has now been replaced by the enzyme immunoassay (ELISA) for initial screening of sera
 - >In the present case, the diagnosis of the disease was not considered before surgery, and a definitive diagnosis was made only by postoperative histopathology.

(5) Until the 1980s, surgery was the only option for treatment of echinococcal cysts; however, chemotherapy with benzimidazole compounds and, more recently, treatment with cyst puncture, aspiration, injection of chemicals and re-aspiration (PAIR) have been introduced and increasingly

->Surgery is contraindicated in patients who refuse it, are pregnant, have preexisting medical conditions that put them at risk, or have multiple cysts that are difficult to access.

->The benzimidazole compounds – albendazole and mebendazole – have been the cornerstone of chemotherapy for cystic echinococcosis. For optimum efficacy, compounds require 15 min “dwell time” within the cavity. Compounds that seem to be fairly safe and effective include 70–95% ethanol, 15–20% saline, and 0.5% cetrimide solution.

->Another feasible option can be image-guided PAIR of scolecidals method for percutaneous treatment of hydatid cyst of parotid gland,]

->However, surgical removal of intact echinococcal cysts, whenever possible, remains the treatment with the best potential to remove cysts and lead immediately to complete cure.

Conclusion

Although hydatid cyst rarely appears in the maxillofacial region, it should be considered in the differential diagnosis of benign growths especially in areas where it is endemic.

題號	題目
1	關於診斷 Echinococcus 感染造成的病灶，我們可以利用 clinical history, physical examination, diagnostic imaging, aspiration, and serologic test 來幫助診斷，請問下列測試何者數值對於判斷封存在 Echinococcus cyst 內的抗原含量沒有正相關? (A) serologic test (B) indirect hemagglutination test (C) enzyme immunoassay (ELISA) (D) aspiration test
答案(A)	出處：Bhola N, Jadhav A, Borle R, Shukla S. Echinococcal cyst affecting the mandible. Ann Maxillofac Surg 2015;5:115-8. P.117
題號	題目
2	在 1980 年前，手術是 Echinococcus cyst 唯一的治癒方法，隨著時代的進步，化學治療(chemotherapy)配合 benzimidazole compounds 也是一個很好的治療方式，請問哪兩種 benzimidazole 藥物對 Echinococcus cyst 有不錯的療效? (A) metronidazole (B) albendazole (C) Benzimidazole fungicides (D) mebendazole
答案(B)(D)	出處：Bhola N, Jadhav A, Borle R, Shukla S. Echinococcal cyst affecting the mandible. Ann Maxillofac Surg 2015;5:115-8. P.118