

**New trends in the management and treatment of *Echinococcus granulosus***

Cystic echinococcosis, due to the development of larval stage of metacestode *Echinococcus granulosus* in humans, is common in many parts of the world. Mediterranean and Balkan regions, as well as Central and Eastern Europe are endemic or highly endemic territories in Europe. The disease is found in pastoral regions, in geographic areas where the transhumance is common, but the “urbanization” of the disease is possible in cities where the stray dogs are present. The understanding of the disease is closely related to the morphology and pathology of the cyst and the correct definition of the cyst or disease, are crucial. The disease is salient for many years but, when complications occur it becomes an emergency. Early diagnosis and appropriate treatment are important, saving the life of the patients. CE treatment should be chosen according to several factors related to the cyst (number, size, location, integrity, etc) and to the host as well (age, pregnancy, associated pathology, surgical risks, patient’s desire, etc). According to different authors and WHO recommendations regarding the management of hydatid disease and therapeutic strategies, the appropriate decision should take into account one of the following methods: (1) medical treatment alone or associated to (2) surgery, or (3) PAIR (puncture-aspiration-injection of scolicide solutions-reaspiration) and other minimal invasive techniques and (4) “watch and wait” attitude. Specialists should carefully evaluate the indications, contraindications, risks and limits of the methods, for the patient’s benefit. Early, correct and complete diagnosis is crucial for the management of the disease. As serology for hydatid disease has certain limits (young patients and cysts, rare locations, lung locations, cysts fertility, etc) the combination of serology and imaging methods (X-ray, ultrasound examination, CT/MRI) should be considered. Medical treatment is recommended for small or multiple cysts or if there are high risks for surgery. When surgical procedures are indicated, opened and radical surgery methods are preferable. If PAIR can be applied (mainly in peripheral, unilocular cysts), it can be used even in children or pregnant women. Both procedures should be associated before and/or after with antiparasitic treatment, in order to avoid the spillage of protoscolices and consequently the relapses. The follow up of the case, as long as possible is required after any surgical or medical intervention.