THE FEASIBILITY OF USING INDIRECT HAEMAGGLUTINATION TESTS FOR DIAGNOSING PULMONARY HYDATID CYSTS

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Objectives: In this study, we studied the feasibility of using the indirect haemagglutination test in diagnosing pulmonary hydatid cysts.

Methods: Between January 2008 and December 2014, 60 consecutive cases that were analysed by a preoperative indirect hemaglutination test and histopathologically found to have pulmonary hydatid cysts were retrospectively analysed. Age and gender of the patients, cyst localization, number of cysts, size of the cysts, spread to other organs outside the lungs, and whether the cysts were intact or ruptured were recorded and examined.

Results: Thirty-five (58.3%) patients were female and 25 (41.7%) patients were male, the mean age was 29.9 ± 20.0 (range 2-83) years. While in 32 (53.3%) of the cases, there was only lung cysts, in 26 (43.3%) cases there were lung and liver cysts, in one case there were lung, liver and pericardial cysts and in another case, the cysts were located in the lung and kidney. While single lung cysts were found in 44 (73.3%), they were multiple cysts in 16 (26.7%) cases. In 34 (56.7%) cases, cysts were found in the right lung, and in 16 cases (26.7%) in the left lung. Ten (16.6%) cases had cysts in both right and left lungs. The mean diameter of pulmonary cysts was 6.1 (range 2-12) cm. In 37 (61.7%) cases, hydatid cysts were ruptured whereas in 23 (38.3%) cases, the cysts were intact. While the general indirect haemagglutination test was found to be positive in 36 (60%) of the cases, it was negative in 24 (40%) of the cases. There were 37 ruptured cases, and 32 (86.5%) of them were tested positive; whereas the test was positive in only 4 (17.4%) of the 24 cases where cysts were intact ($P < 0.001$).

Conclusions: Our study demonstrated that the most important factor that affects the positivity of the indirect haemagglutination test is the intactness of the cyst. When faced with a confusing case involving ruptured cysts, the indirect haemagglutination test could help in the diagnosis.

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