A rare aspect of Crohn's disease: Pulmonary involvement in a child

Sir,

I read with interest the case report by Ongun *et al*. on the pulmonary involvement in a Turkish child with Crohn's disease (CD).[1] The authors mentioned that "the patient's history of bronchiolitis episodes in the past suspecting of a subclinical pulmonary involvement, the aggravation of respiratory symptoms after colonic surgery which is accepted as a triggering factor, a sudden decline in C-reactive protein, and dramatic clinical improvement after the initiation of prednisolone appointed us the higher possibility of CD-related pulmonary involvement."[1] The authors did well in studying deep tracheal aspirates that were evaluated for *Mycobacterium tuberculosis* species and viral respiratory organisms to rule out infliximab-related infections (all were negative).[1] However, they could not differentiate the cause of the inflammatory pulmonary disease by histopathological examination due to the parental disapproval for bronchoscopy.[1] Importantly, the authors did not consider another granulomatous pulmonary lesion in pediatric population that has received ample attention worldwide. I presume that pulmonary sarcoidosis ought to be scrutinized in the case in question by the suitable diagnostic workup. My assumption is based on the following four points.

First, it is obvious that sarcoidosis, a chronic multisystem inflammatory granulomatous disorder of unknown origin, is a rare disease in children and pulmonary involvement is even much rare. Due to the nonspecific clinical features and the lack of a specific test, recognizing sarcoidosis can be difficult in the pediatric population.[2] Despite that, pediatric pulmonary sarcoidosis is increasingly reported in the literature.[3] In Turkey, the available data pointed out that children with sarcoidosis were noticed to have more frequent pulmonary parenchymal involvement than in adults.[4]

Second, sarcoidosis and concomitant gastrointestinal CD have been reported in patients, as well as the coexistence of CD and sarcoidosis in siblings. Common susceptibility loci have been identified in CD and sarcoidosis.[5]

Third, the studied patient's clinical condition and pulmonary functions improved dramatically after initiation of steroid therapy. This further supports the need to consider concomitant sarcoidosis as steroid represents the main-stay in the treatment of CD and sarcoidosis.

Fourth, due to the lack of a specific test to precisely diagnose sarcoidosis, a biopsy specimen remains the

gold standard with typical epithelioid gigantocellular granuloma without caseating necrosis granuloma, after other disorders known to cause granulomatous disease have been reasonably excluded, particularly tuberculosis.[2] In sarcoidosis patients, the angiotensin-converting enzyme (ACE) level in body fluids will become elevated.[2,5] Measuring ACE in bronchoalveolar lavage fluid can better sign the activity of the pulmonary sarcoidosis than in serum. I presume that the parental decline to do bronchoscopy in the case in question should lead the authors to consider measuring ACE level in deep tracheal aspirates as a last resort to exclude sarcoidosis. If that was achieved and it was proved to be a case of sarcoidosis, the case in question would be considered a novel case report of concomitant pediatric CD and sarcoidosis-associated pulmonary involvement as such association has never been described in the pediatric literature so far.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Mahmood Dhahir Al-Mendalawi
Department of Paediatrics, Al-Kindy College of Medicine, Baghdad University, Baghdad, Iraq

Correspondence:
Prof. Mahmood Dhahir Al-Mendalawi, Department of Paediatrics, Al-Kindy College of Medicine, Baghdad University, P.O. Box 55302, Baghdad Post Office, Baghdad, Iraq.
E-mail: mdalmendalawi@yahoo.com

References

1. Ongun EA, Artan R, Bingol A, Dursun O. A rare aspect of Crohn's disease: Pulmonary involvement in a child. Indian J Crit Care Med 2016;20:114-6.
2. Deverrière G, Flamans-Klein A, Firmin D, Azouzi O, Courville P, Le Roux P. Early onset pediatric sarcoidosis, diagnostic problems. ArchPediatr 2012;19:707-10.
3. Nathan N, Marcelo P, Houdouin V, Epaud R, de Blic J, Valeyre D, *et al.* Lung sarcoidosis in children: Update on disease expression and management. Thorax 2015;70:537-42.
4. Yanardag H, Pamuk ON, Uygun S, Demirci S, Karayel T. Sarcoidosis: child vs adult. Indian J Pediatr 2006;73:143-5.
5. Damen GM, van Krieken JH, Hoppenreijs E, van Os E, Tolboom JJ, Warris A, *et al.* Overlap, common features, and essential differences in pediatric granulomatous inflammatory bowel disease. J Pediatr Gastroenterol Nutr 2010;51:690-7.

Access this article online

Quick Response Code:

Website: www.ijccm.org

DOI: 10.4103/0972-5229.180054

How to cite this article: Al-Mendalawi MD. A rare aspect of Crohn's disease: Pulmonary involvement in a child. Indian J Crit Care Med 2016;20:252-3.