using video-assisted mediastinoscopy, revealing blurred lymph node architecture occupied by multiple confluent granulomas of a similar size, formed of epithelioid-like histiocytes, with no necrosis and the presence of multinucleated giant cells. PAS and Ziehl-Neelsen stains were negative. All these findings were consistent with the diagnostic suspicion of stage II sarcoidosis.

Psoriasis is one of the most common systemic inflammatory diseases. It is characterized by increased immune system activity, mainly derived from activation of the Th1 and Th17 lymphocytes.

Sarcoidosis is a chronic disease characterized by the formation of non-caseifying epithelioid granulomas, most commonly in the lungs, skin and eyes. Although the etiology is still partly unknown, we know that the immunological basis of the disease consists of an accumulation of CD4 T cells in the inflammation sites, which interact with macrophages, causing an imbalance in favor of a Th1 cytokine profile, which finally triggers the granulomatous inflammatory process.[1] The role of the Th17 lymphocytes in the formation of sarcoid granulomas has also been established, as has their importance in the alveolitis phase and in progression to the fibrotic stage of the disease.[1]

Very few cases of concomitant psoriasis and sarcoidosis have been reported,[2–4] although recently a greater risk of presenting sarcoidosis has been observed in psoriasis patients compared to the general population, an association that moreover is severity-dependent.[5]

These data all go to support the hypothesis of a shared pathogenic pathway, although studies are needed to elucidate the possible role of other factors, such as the sarcoid disease phenotype, a possible paradoxical effect of treatment of the psoriasis itself (a phenomenon described with anti-TNFα antibodies[6]), the importance of environmental factors such as smoking, and the possible clinical, prognostic and therapeutic implications of the combination of both diseases.

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The Possible Role of Asbestos Exposure in the Pathogenesis of a Thoracic Non-Hodgkin Lymphoma☆

Posible papel de la exposición al asbesto en la patogenia de un linfoma no Hodgkin torácico

To the Editor,

Various studies suggest that a causal relationship might exist between asbestos exposure and the development of lymphoproliferative disorders.[1,2] We report the appearance of a non-Hodgkin lymphoma in a patient with a history and signs of heavy exposure to asbestos.

An 86-year-old man was admitted to a general hospital in January 2011 for dyspnea, fatigue, and weight loss. Chest X-ray showed left pleural effusion. Past disease history included gastric resection for peptic ulcer in 1950, aortic valve replacement in 2008, and colon polypectomy in 2010. The patient had worked for about 14 years as a shipwright with various firms in the shipbuilding industry in Trieste, and as a mechanic for 4 years in an oil refinery. Chest computed tomography showed left pleural effusion, and bilateral thickening of the pleura with calcifications. Thoracoscopy was not performed in view of the patient's age. In June 2012, chest radiography showed an opacity at the apex of the right lung. By July 2012, the thoracic opacity had spread to the right upper mediastinum. The patient died in July 2012 with a diagnosis of acute respiratory failure, due to probable neoplasia of the pleura. Right pleural effusion was observed on autopsy. Right parietal pleura showed large pleural plaques and soft, whitish neoplastic nodules. Similar nodules were visible on the surface of the right lung without infiltration of the parenchyma, and in the pericardium. The left lung showed atelectasis of the lower lobe and marked edema of the upper lobe. Left pleural effusion was no longer visible. Mediastinal lymph nodes appeared enlarged with masses similar to those seen in the right lung. Histological examination found that the nodules in the right pleura, lung and lymph nodes were composed of sheets of small and large lymphoid cells. Immunohistochemistry (CD20, CD3, CD56, CK Ae1-Ae3, synaptophysin) was consistent with a diagnosis of B cell non-Hodgkin lymphoma. The lungs showed asbestosis: high burdens of asbestos bodies (57 000 bodies per gram of dried tissue) were isolated from the lung after chemical digestion of the pulmonary tissue (Smith and Naylor method[3]).

The clinical diagnosis of this patient with a history of severe asbestos exposure and pleural pathology remained undefined. The case is similar in some ways to that described by Parisio et al.[4] Numerous studies have explored the possible relationship between asbestos exposure and non-Hodgkin lymphoma or hematopoietic cancer in general.[1,2,4] The association between non-Hodgkin lymphoma and asbestos-related mesothelioma, in particular, does not seems to be exceptional.[1] In a recent study of a large mesothelioma series, including more than 3600 cases,[2] there were 45 cases of hematopoietic malignancies. While the role of radiation in the genesis of mesothelioma in patients who had received previous radiotherapy is plausible, the majority of non-Hodgkin lymphoma patients were radiotherapy-naïve.

Various elements suggest a relationship between asbestos and non-Hodgkin lymphoma. Firstly, the relatively high prevalence of the association between mesothelioma and lymphoma (both rare in the general population) is difficult to attribute to chance.

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Secondly, extranodal lymphoma (a variety particularly observed among immunocompromised individuals) has repeatedly been reported.[1] Thirdly, the recognized effects of asbestos on immune mechanisms[5] confers biological plausibility to the notion of a relationship between asbestos and lymphoma.

Conflict of interests

One of the authors (Claudio Bianchi) has provided scientific information in criminal or civil court cases related to asbestos diseases, serving as an expert for the court or for the plaintiff.

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Evolution, Diagnosis and Treatment of Elderly Subjects with Thoracic Sarcoidosis: Report of 6 Cases☆

Evolución, manejo diagnóstico y terapéutico en ancianos diagnosticados de sarcoidosis con afectación torácica: a propósito de 6 casos

To the Editor:

Sarcoidosis is a systemic granulomatous disease diagnosed mainly in patients younger than 40 years of age.[1]

We report 6 cases of thoracic sarcoidosis with onset at advanced age, and analyze how this disease differs in the elderly.

We reviewed 6 patients with sarcoidosis diagnosed after the age of 70 years. Presentation at the time of diagnosis was: erythema nodosum (1 patient), Sjögren's syndrome (1), respiratory symptoms (2) and asymptomatic finding (2). Radiological findings on chest computed tomography revealed sarcoidosis type I in 1 patient, sarcoidosis type II in 4 patients, and sarcoidosis type III in 1 patient. Three patients had atypical radiological findings in the chest computed tomography. All patients had elevated angiotensin-converting enzyme (ACE) levels. Bronchoscopy was performed in 4 patients, gallium scintigraphy in 4, and spirometry in 2. To rule out tuberculous infection, sputum culture was performed in 4 patients, all with negative results. Biopsy was performed in 5 patients in total: salivary gland biopsy in 1 patient (negative result), and lung in the others. Techniques used to obtain pulmonary parenchymal biopsies were transbronchial biopsy, cryobiopsy, open lung biopsy, and endobronchial ultrasound-guided bronchoscopy of mediastinal lymphadenopathies. Non-necrotizing granulomas were confirmed on pathology testing. As regards treatment, 4 patients required corticosteroids. Clinical progress was as follows: 3 patients remained stable, 2 improved and 1 worsened. During patient follow-up (ranging between 1.5 and 10 years), 2 patients died for reasons not attributable to sarcoidosis. None of the patients developed pulmonary fibrosis.

Sarcoidosis rarely occurs in elderly patients, and few references are available in the literature. After the age of 65 years, sarcoidosis can be considered elderly-onset.[2] Elderly subjects more frequently report general symptoms and it is unusual for disease to be identified by a chance finding in asymptomatic patients.[3,4]

The diagnostic tests for confirming suspected sarcoidosis and for ruling out infectious or malignant processes are manifold. The most typical radiological findings are lymphadenopathies and small pulmonary nodules distributed around the lymph nodes. Many atypical radiological forms have been described, some of which are more common in patients older than 50 years. ACE levels were elevated in some of our cases, but the utility of this marker in the elderly is questionable, since it can also be elevated in renal failure or diabetes.[3]

Table 1
Differences in Thoracic Sarcoidosis in Elderly Patients (≥65) Compared to Other Age Groups.

	Symptoms at Onset	Radiology	ACE	Bronchoscopy	Mantoux	Scintigraphy	Biopsy	Progress	Treatment
≥65	More frequent general symptoms. Rare asymptomatic forms	More frequent atypical adenopathy patterns on radiological tests	↑	No differences	False negatives in the elderly	No differences	Salivary glands Select technique in eldery, more fragile patients	No differences	More side effects requiring closer monitoring
<65	Skin, eyes, asymptomatic forms	Typical and atypical patterns	↑				Lung and lymph node biopsies		

ACE: angiotensin-converting enzyme, more often encountered in sarcoidosis in the elderly.

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