

Association of sarcoid-like reaction with pancreatic malignancy

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ABSTRACT

Introduction: Paraneoplastic syndromes manifesting as non-caseating epithelioid granulomas have been documented in the medical literature since 1917. These can pose a diagnostic and therapeutic dilemma if not identified as associations. **Case Report:** We present a case of mucinous adenocarcinoma in the pancreatic head, associated with hilar and mediastinal lymphadenopathy. After a complicated and ultimately terminal progression of disease, post-mortem lymph node biopsy confirmed non-caseating granulomas. **Conclusion:** Thus it is prudent to identify such histopathologic changes with lymph node biopsy before further management decisions are made.

Keywords: Epithelioid granulomas, Pancreatic cancer, Paraneoplastic, Sarcoidosis

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INTRODUCTION

Sarcoidosis is a chronic, granulomatous, multisystem disease most commonly found in middle-aged women and African-Americans. Pulmonary involvement is typical, as well as intra-thoracic lymphadenopathy, but ocular and dermatologic presentations also occur. The prevalence of sarcoidosis has been reported to be as high as approximately 10–20 cases per 100,000 people [1, 2]. Additionally, sarcoid-like reactions occur secondary to malignancy in 4.4% of carcinomas, 13.8% of Hodgkin's lymphomas and 7.3% of non-Hodgkin's lymphomas [3, 4]. This reaction can occur within the malignant tissue, lymph nodes draining the tumor or in non-regional tissues.

CASE REPORT

A 67-year-old Caucasian male with past medical history of hypogonadism, hyperlipidemia, depressive mood disorder, chronic obstructive pulmonary disease, type 2 diabetes mellitus, coronary artery disease and hypothyroidism presented with a one year history of weight loss of approximately 20 pounds. Laboratory

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analysis was significant for transaminitis, with alanine transaminase and aspartate transaminase both >200 IU, alkaline phosphatase >1200 IU, total bilirubin 7 mg/dl, direct bilirubin 5 mg/dl, albumin 2 mg/dl. Diagnostic imaging revealed CT abdomen and pelvis with new significant extra and intrahepatic biliary ductal dilatation associated with abrupt narrowing of the distal common bile duct at the level of the pancreatic head. There was radiographic evidence of pancreatic ductal dilatation that appeared chronic in nature. There was slight interval increase in fullness of the pancreatic head compared a previous study published four years prior. Additionally, there was a questionable soft tissue density that projected into the second part of the duodenum, suspicious for neoplasm of the pancreatic head. Lastly, there was interval increase in peripancreatic and retroperitoneal lymphadenopathy. An ERCP with biopsy was performed, and histopathologic analysis demonstrated mucinous carcinoma of the pancreas. The patient's hospital course was complicated by acute cholangitis and pancreatitis deemed secondary to the endoscopic intervention into the biliary system. A subsequent PET scan of the chest revealed hilar and mediastinal lymphadenopathy (Figure



Figure 1: A PET scan showing highlighted enlarged mediastinal lymph nodes (black arrow).

1). The patient was eventually stabilized and referred for hospice care. A few months later he expired as a result of complications from pancreatic adenocarcinoma. An autopsy was requested by the family, which revealed non-caseating granulomatous inflammation of the hilar and mediastinal lymph nodes consistent with sarcoidosis.

DISCUSSION

The first case of malignancy with associated sarcoidosis was reported in 1917 [5]. Reported as “sarcoid-like reactions”, they are usually related to lymph node drainage of primary tumors and other extranodal sites [3]. The presentation is often times atypical without classic sarcoid laboratory findings. Since 1917 the medical literature has shown that, in cases of sarcoidosis associated with mycobacterial infections, the granulomas are B cell negative; and conversely B cell positive in sarcoid-like reactions associated with toxoplasmosis [6]. These reactions occur as part of a T cell mediated response to antigenic factors shed by tumor cells, or released during tumor necrosis. The lymphangitic spread results in a hypersensitivity-like reaction producing non-caseating granulomas [3]. On PET/CT imaging, systemic sarcoidosis, sarcoid-like reactions and hepatopancreaticobiliary malignancies are indistinguishable and are thus difficult to classify [7, 8]. Corticosteroids are considered beneficial in reducing the degree of transaminitis. Additionally, in previously reported cases where sarcoid-like reactions are proven on biopsy, it is recommended that patients be treated with corticosteroids prior to initiation of chemotherapy or planned tumor resection [9].

CONCLUSION

It is prudent to identify these histopathologic changes with lymph node biopsy before further management decisions are made.

Author Contributions

Praneet Wander – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of the data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Adedapo Iluyomade – Acquisition of data, Drafting the article, Final approval of the version to be published

Akriti Gupta – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published

Arunpreet S. Kahlon – Analysis and interpretation of the data, Revising it critically for important intellectual

content, Final approval of the version to be published
Aakash Aggarwal – Substantial contributions to conception and design, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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REFERENCES

1. Iannuzzi MC, Rybicki BA, Teirstein AS. Sarcoidosis. *N Engl J Med* 2007 Nov 22;357(21):2153–65.
2. Rybicki BA, Major M, Popovich J Jr, Maliarik MJ, Iannuzzi MC. Racial differences in sarcoidosis incidence: a 5-year study in a health maintenance organization. *Am J Epidemiol* 1997 Feb 1;145(3):234–41.
3. Brincker H. Sarcoid reactions in malignant tumours. *Cancer Treat Rev* 1986 Sep;13(3):147–56.
4. Cohen PR, Kurzrock R. Sarcoidosis and malignancy. *Clin Dermatol* 2007 May-Jun;25(3):326–33.
5. Herxheimer G. Uber Karzinom und Tuberkulose. *Z Tuberk* 1917;27:251–58.
6. Brincker H. Interpretation of granulomatous lesions in malignancy. *Acta Oncol* 1992;31(1):85–9.
7. Chowdhury FU, Sheerin F, Bradley KM, Gleeson FV. Sarcoid-like reaction to malignancy on whole-body integrated (18)F-FDG PET/CT: prevalence and disease pattern. *Clin Radiol* 2009 Jul;64(7):675–81.
8. Hunsaker AR, Munden RF, Pugatch RD, Mentzer SJ. Sarcoidlike reaction in patients with malignancy. *Radiology* 1996 Jul;200(1):255–61.
9. Fong ZV, Wong J, Maley WR, et al. Sarcoid-reaction mimicking metastatic malignant hepatopancreatobiliary tumors: report of two cases and review of the literature. *J Gastrointest Surg* 2012 Jun;16(6):1245–50.

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