Case Report

DOI: 10.56016/dahudermj.1263226

DAHUDER Medical Journal
e-ISSN: 2791-9250

Erythema nodosum: A clinical sign of acute pancreatitis

Yasemin Çöl[1], Dilara Turan Gökçe[2], Meral Akdoğan Kayhan[2]

[1]Department of Internal Medicine, Bilkent City Hospital, Ankara, Turkey
[2]Department of Gastroenterology, Bilkent City Hospital, Ankara, Turkey

ABSTRACT

Although pancreatic pathologies are primarily and mostly manifested by abdominal complaints, they can also occur with other organ systems. Erythema nodosum is the most common variant of panniculitis.[1] In this study, we present a patient with acute pancreatitis who developed erythema nodosum.

Keywords: Erythema nodosum, pancreatitis, panniculitis

Pancreatic pathologies such as acute and chronic pancreatitis, autoimmune pancreatitis and pancreatic cancer often present with gastrointestinal system symptoms. These may sometimes be accompanied by cutaneous symptoms that precede even the abdominal findings.[2]

Erythema nodosum is the most common clinicopathological variant of panniculitis. It is a cutaneous reaction consisting of inflammatory, tender, nodular lesions usually located in the pretibial region, which regresses within 3-6 weeks. This condition may be associated with a wide variety of pathologies including infections, sarcoidosis, rheumatological diseases, inflammatory bowel diseases, drugs, autoimmune disorders, pregnancy and malignancies.[3] Erythema nodosum is divided into acute and subacute/chronic forms. The acute classical form usually affects the bilateral legs in young women, while it can rarely be seen on the forearm and thigh. It may take days, weeks or months, but heals without sequelae. The subacute/chronic form is called "Erythema nodusum migrans". It is mostly seen on the extensor surface of the tibia. There is no ulceration, scarring or tenderness. Unlike the acute form, it can last for years, not days.[4]

CASE PRESENTATION

A 36-year-old female patient applied to the emergency department with complaints of abdominal pain, jaundice, darkening of the urine color and redness on the anterior of the leg, which had been present for 2 days. The lesions of the patient's anterior leg started approximately 24-36 hours after the abdominal pain in both pancreatitis attacks. The patient also suffered pancreatitis three months earlier. Aspartate aminotransferase (AST):201 U/L, Alanine aminotransferase (ALT):255 U/L, alkaline phosphatase (ALP):423 U/L, gamma glutamyl transferase (GGT):230 U/L Amylase:2115 U/L Lipase:3157 U/L Total Bilirubin:9.5 mg/dl Direct Bilirubin:6,6 mg/dl White Blood Count:7,85x10^9/L Glucose: 90 mg /dl C-Reactive Protein:90 mg/L Lactate dehydrogenase:336 U/L were in the patient's admission laboratory examinations. The patient with epigastric, girdle-style pain was hospitalized for further examination and treatment with a preliminary diagnosis of pancreatitis.

In the contrast-enhanced tomography of the abdomen taken in the emergency department of our

Received: *March 10, 2023****; Accepted:*** *June 13, 2023****; Published Online:*** *July 29, 2023*

How to cite this article: *Çöl Y, Turan Gökçe D, Akdoğan Kayhan M. Erythema nodosum: A clinical sign of acute pancreatitis .DAHUDER MJ 2023,3(X):97-99. DOI: 10.56016/dahudermj.1263226*

Address for correspondence: *Yasemin Çöl, MD. Bilkent City Hospital, Ankara, Turkey*
E-mail: unubuyukyasemin@gmail.com

hospital, the intrahepatic bile ducts were dilated in all lobes, the common bile duct diameter was 15 mm, and it was thinning distally. There were stone-mud densities in the lumen distal to the common bile duct, the pancreatic parenchyma was mildly edematous, inflammatory density increases in the peripancreatic fat planes and a moderate amount of peripancreatic free fluid were present. When the patient was admitted to the emergency service of our hospital, his temperature was 37.1 C, heart rate was 89/min, BP: 112/66 mm/hg, and saturation was 99 on room air. The general condition of the patient was moderately conscious, oriented and cooperative, Glasgow Coma Scale (GCS): 15 and Ranson score: 0. Biliary pancreatitis was initially considered in the patient.

On physical examination, there was tenderness in the right upper quadrant of the abdomen and no signs of acute abdomen. Respiratory and heart sounds were normal and pretibial edema was not detected. There were nodular hyperemic lesions of approximately 1 cm that faded by pressing on both legs, with the left tibia dominant on the anterior surface (Fig. 1A). Erythema nodosum were identified as the patient's lesions, which were assessed in conjunction with dermatology. It was learned that the patient had an attack of pancreatitis 3 months ago. The patient stated that the same lesions were present in the previous pancreatitis attack. Autoimmune pancreatitis was not considered due to the detection of 15 milimeters stones in the gallbladder in the hepatobiliary ultrasonography taken in the patient's pancreatitis attack 3 months ago.

In the endoscopic ultrasonography performed by us, the common bile duct was 7.9 millimeters at the level of the hilus and ended by thinning distally. No pathology was observed in the common bile duct. Left intrahepatic bile ducts were minimally prominent in the central part. Pancreas was voluminous and hypoechoic lobulations were observed in the parenchyma (secondary to pancreatitis?). Rheumatic diseases were not considered in the differential diagnosis of erythema nodosum due to the regression of the lesions after the acute pancreatitis episode resolved. There were no features suggesting a rheumatological disease in the patient's system investigation and examination.

In the follow-up of the patient who was treated for pancreatitis and planned for cholecystectomy, improvement in blood parameters was observed, and Ranson score was 0 at the 48th hour. The patient's skin lesions regressed at 48 and 72 hours (Fig. 1B).

DISCUSSION

Skin findings are a rare complication of pancreatitis.[2] However, it has been known for a long time that patients with pancreatitis have skin findings.[5] Also pancreatic panniculitis; It can also mimic other forms of panniculitis such as erythema nodosum, erythema induratum, traumatic, infectious or α1-antitrypsin deficiency panniculitis.[6]

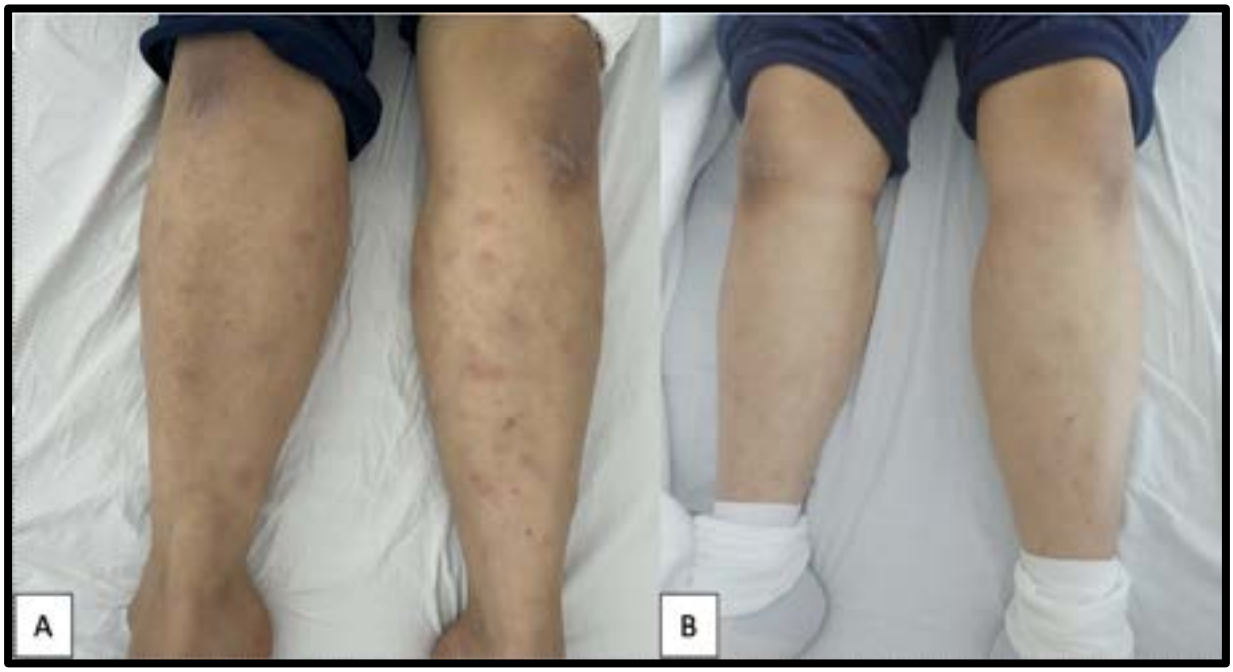

Fig. 1. Erythema nodosum at the patient's admission (A) and at the 72nd hour of hospitalization (B)

It has been thought that skin lesions in acute pancreatitis may be associated with the prognosis of the disease, but it has been reported in the literature that skin lesions are also present in non-severe acute pancreatitis cases, as in our case. In our case, the patient's Ranson score was 0 and the patient's clinic began to improve within 72 hours.

CONCLUSION

Skin lesions in pancreatitis, although rare, can be seen. Skin lesions are mostly not associated with abdominal pathologies by clinicians. However, the presence of skin manifestations of pancreatitis should be kept in mind in the differential diagnosis.

Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding Sources

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Authors' Contribution

Study Conception: DTG; Study Design: YÇ; Supervision; MAK; Data Collection and/or Processing: YÇ, DYG; Analysis and/or Data Interpretation: YÇ; Literature Review: YÇ; Critical Review: DTG; Manuscript preparing: YÇ.

REFERENCES

1. Kelati, A., Meziane, M., Soughi, M., & Mernissi, F. (2016). L'érythème noueux, une complication des teignes à Trichophyton mentagrophytes [Erythema nodosum due to tinea]. Archives de pediatrie : organe officiel de la Societe francaise de pediatrie, 23(7), 727–730. https://doi.org/10.1016/j.arcped.2016.04.014.
2. Miulescu R, Balaban DV, Sandru F, Jinga M. Cutaneous Manifestations in Pancreatic Diseases-A Review. J Clin Med. 2020 Aug 12;9(8):2611. doi: 10.3390/jcm9082611. PMID: 32806580; PMCID: PMC7464368.
3. Mert A. Eritema Nodozum: 9 Yillik Deneyim. Cerrahpaşa Tıp Dergisi. 2002; 33(1): 47-59
4. Akif Karababa, Serap Utaş. Panniculitis. J Clin Pract Res. 1998; 20(2): 176-183.
5. Requena L, Requena C. Erythema nodosum. Dermatol Online J. 2002 Jun;8(1):4. PMID: 12165214.
6. Laureano A, Mestre T, Ricardo L, Rodrigues AM, Cardoso J. Pancreatic panniculitis - a cutaneous manifestation of acute pancreatitis. J Dermatol Case Rep. 2014 Mar 31;8(1):35-7. doi: 10.3315/jdcr.2014.1167. PMID: 24748910; PMCID: PMC3989096.