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RESEARCH ARTICLE

SUBCUTANEOUS NODULES WITH A GROUND GLASS ASPECT

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Abstract

Polyarteritis nodosais a necrotic systemic vasculitis, it can manifest in its cutaneous form through ulcero-nerotic lesions with no other systemic manifestations. We report the case of a 73-year-old woman admitted for diffuse multifocal cutaneous lesions seen clinically and on CT scan corresponding to polyarteritis nodosa.

Introduction:-

Polyarteritis nodosais a necrotic systemic vasculitis, it can manifest in its cutaneous form through ulcero-nerotic lesions with no other systemic manifestations. We report the case of a 73-year-old woman admitted for diffuse multifocal cutaneous lesions seen clinically and on CT scan corresponding to polyarteritis nodosa.

Case Description:

A 73-year-old woman with a medical history of high blood pressure, was admitted for ulcero-necrotic cutaneous lesions of the lower limbs and the thoraco-abdominal region. She also complained from abdominal pain for a couple of months. A CT-angiographyof the aorta and the lower limbs showed multifocal nodular hypodense subcutaneous lesions associated with adjacent cutaneous thickening, indicative of multifocal and diffuse panniculitis. No vascular associated anomaly was noted. Biopsy of these lesions was suggestive of polyarteritis nodosa.

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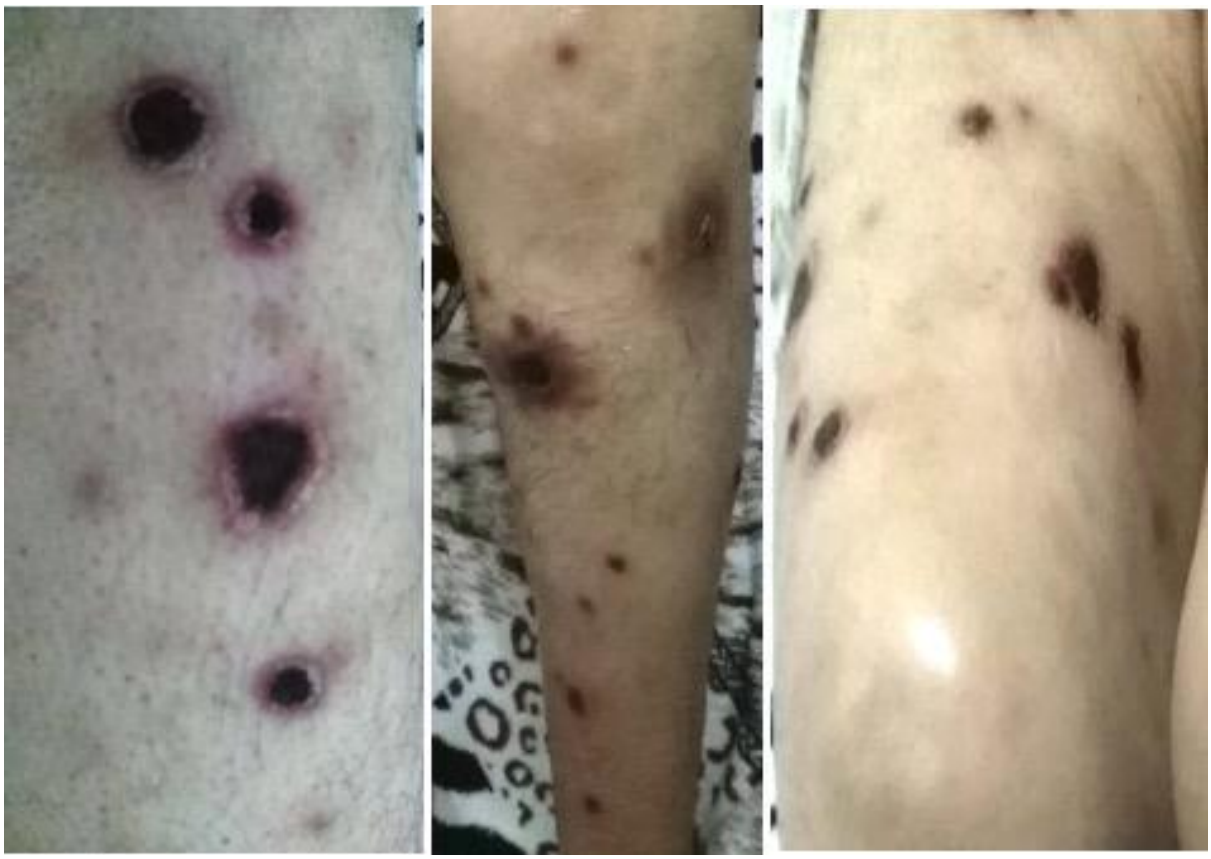

Figure 1:- Photograph of ulcerated erythematous and necrotic nodules of the lower limbs.

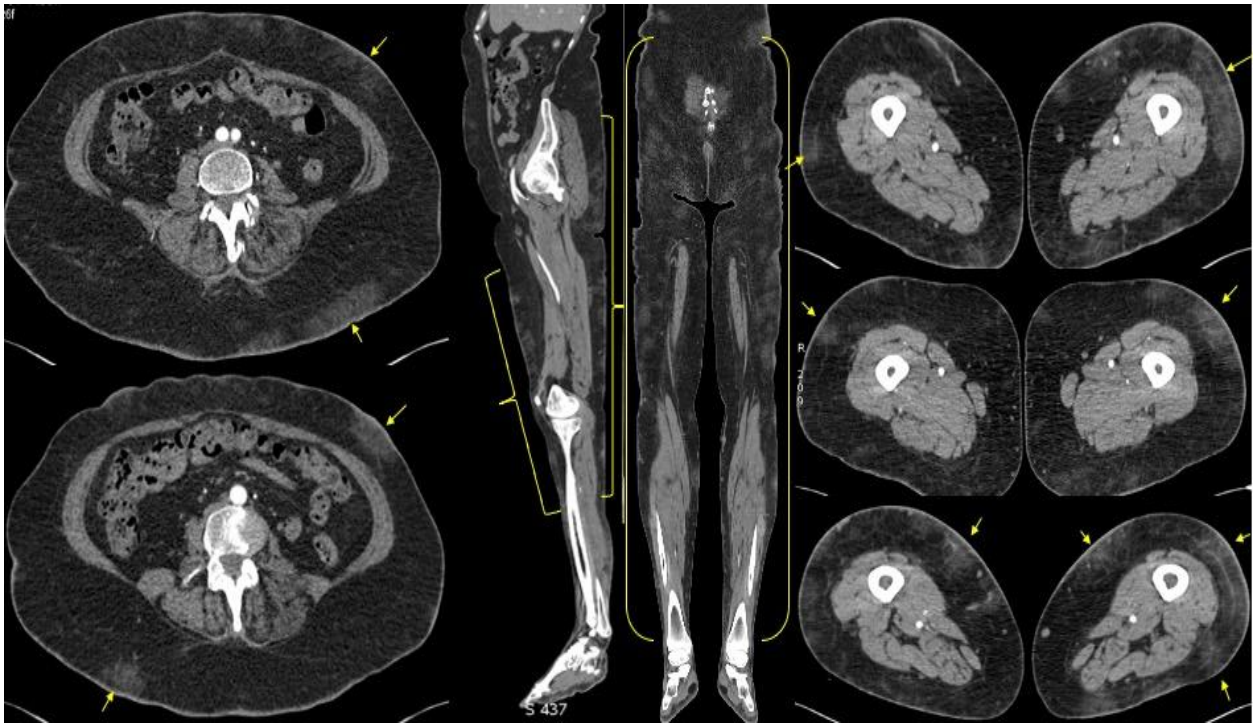

Figure 2:- CT scan of the lower limbs showing multiple diffuse subcutaneous dermo-hypodermal nodules with a ground glass aspect, associated with focal cutaneous thickening compatible with a multifocal and diffuse panniculitis (Yellow arrows).

Discussion:-

Polyarteritis nodosa (PAN) in its cutaneous form, is a panniculitis involving the dermis and the panniculus associated with anatomopathological lesions of arteritis.[1]It is also named a cutaneous arteritis.[2] It is a necrotic systemic vasculitis first described by Adolph Kussmauland Rudolph Maier in 1866. [3]It affects mainly old male patients. This inflammatory vasculitis involves medium and small sized arteries and arterioles. While most cases are idiopathic, secondary causes of the disease include viruses such as HBV and HBC, and hemopathies like hairy cell leukemia. [3]

Clinical presentations include tender erythematous nodules, livedo reticularis and skin ulcers. They may be confined to the lower limbs or be diffuse.[1]Criteria of diagnosis is the absence of systemic manifestations, an association to localized myalgia or arthralgia is considered a localized complication.[4]Sometimes digestive symptoms like post-prandial abdominal pain, described as “intestinal angina” can be associated.[3]

There’s no specific laboratory test for diagnosing PAN: its diagnosis remains clinical. Laboratory investigations are mainly useful for identifying viral causes and assessing renal function.

PAN can affect the kidneys manifesting with high blood pressure, and the peripheral nervous system manifesting with mononeuritis multiplex.

A biopsy confirms the diagnosis of PAN by showing necrotizing arteritis with inflammatory changes.

Sometimes, less invasive methods such asCT angiography or MRI can be useful, by detecting aneurysms and/or stenosis of middle-sized arteries or occlusion of smaller vessels. [3]

Treatment of PAN depends on the severity and cause of the disease. The most used treatment is corticosteroids. If the PAN is limited to the dermis,glucocorticoids are prescribedby the dose of 1 mg/kg per day (maximum of 60 to 80 mg per day) for a month before tapering it down progressively. Whereas in more severe diseases, like signs of renal insufficiency, ischemic disease or arterial stenosis and aneurysms, and severe extra extracutaneous lesions, immunosuppressors like cyclophosphamides are preferred. [5]

Moreover, patients who suffer from high blood pressure are treated with angiotensin-converting enzyme inhibitor. And in PAN secondary to viral infections, antiviral agents are used before the immunosuppressing therapy. [6]

Conclusion:-

Cutaneous polyarteritis nodosadiagnostic criteria include cutaneous manifestations in the form of ulcero-nerotic lesions with no other systemic anomalies. Diagnosis is mostly clinical and histological confirmation may be necessary. Laboratory tests are mostly useful for secondary PAN in case of viral infections or hemopathies. Treatment is based on glucocorticoids in the majority of cases however, when it’s secondary or with the presence of severe extracutaneous lesions, other therapeutic agents are opted.

Abbreviations:
CT= Computed Tomography
HBV= Hepatitis B Virus
HCV= Hepatitis C Virus
MRI= Magnetic resonance imaging
PAN= Polyarteritis nodosa

Conflicts of Interest:
No potential conflict of interest relevant to this article was reported.

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