

CUTANEOUS PRURIGO - CASE PRESENTATION

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Abstract: We present the case of a patient of 76 years old with chronic cutaneous pruritus, who was admitted to the department of Allergology to investigate its etiology. The patient has permanent pacemaker for third-degree atrioventricular block and multiple associated cardiac conditions, chronic kidney disease stage IV. After multiple investigations, the patient was diagnosed with stage IV lung cancer, the recommendation consisted of the symptomatic therapy only. Lung cancer is one of the rare cases that can cause chronic itching.

Cuvinte cheie: prurigo, cancer pulmonary, pulmonary cancer, boala renala cronica

Rezumat: Prezentăm cazul unui pacient de 76 ani cu prurit cutanat cronic care a fost internat în compartimentul de Alergologie pentru investigarea etiologiei acestuia. Pacientul este cu cardiostimulare permanentă pentru bloc atrio-ventricular gradul III și multiple afecțiuni cardiace asociate, boală renală cronică stadiul IV. După multiple investigații, pacientul a fost diagnosticat cu neoplasm pulmonar stadiul IV, cu recomandare doar de terapie simptomatică. Neoplasmul pulmonar este una dintre cauzele rare care pot genera prurit cronic.

We present the case of a 76-year-old patient, retired, who came for an allergology consultation to our ambulatory service, presenting a generalized cutaneous prurigo with onset one month before. He was recommended antihistamine therapy in high doses, and to come back for reassessment after 2 weeks.

The patient returned after 2 weeks with the same generalized cutaneous prurigo, but also with insomnia caused by prurigo, fatigue, marked asthenia, lack of appetite, without weight loss; this time he was admitted to hospital. The patient had permanent cardiostimulation for an atrioventricular block grade III, being diagnosed also with: coronary heart disease, hypertrophic obstructive cardiomyopathy, functional moderate mitral insufficiency, tricuspidian moderate/severe insufficiency, secondary moderate pulmonary hypertension, congestive heart disease NYHA III/IV, chronic kidney disease stage IV, peripheral arterial disease of the lower limbs stage II. The patient was smoker for 40 years, smoking 20 cigarettes/day, but had stopped smoking 10 years ago.

Objective examination at admission evidenced a deteriorated general condition, a BMI of 25,53 kg/m², erythematous facies, ringed, with bilateral suborbital edema, generalized skin xerosis, generalized furfuraceous scaling, with bilateral erythematous placards of the forearms because of scratching, the superficial nodal system impalpable, normal chest package, bronchial stasis rales BP = 90/50 mmHg, VA = 60 /min; in the precordial region, superficially under the skin, the pacemaker was palpable, the abdomen painless under palpation (figure no. 1).

Diseases which can induce pruritus are:(1)

- Metabolic and endocrine diseases: (chronic renal insufficiency, liver diseases with or without cholestasis, hyperparathyroidism, hyper- and hypothyroidism)
- Infectious diseases (AIDS, parasitoses)
- Haematological disorders (polycythemia vera, myelodysplastic syndroms, lymphoma)

- Neurological diseases (multiple sclerosis, brain tumors)
- Psychiatric or psychosomatic diseases (depression, hallucinosis, schizophrenia, obsessive disorders).

Figure no. 1. Patient's skin



The cause of the pruritus in our case could be the known chronic renal insufficiency. The pathophysiology of pruritus associated with chronic kidney diseases is unknown.

The implicated mechanisms include: metabolic factors like increased concentrations of divalent ions (calcium, magnesium), parathyroid hormone, histamine and tryptase, but also micro-inflammation which is quite frequent in uremia.

Pruritus is also frequent in the elderly, mainly during winter months and more frequent in women. The mechanisms are unknown, but contributing factors may be the changes in the aged skin, a decreased function of the stratum corneum, xerosis and medications.

The clinical interpretation of our patient, besides the known cardiac and renal diseases, was astheno-adyamic syndrome and chronic prurigo.

Biochemical tests evidenced an important inflammatory syndrome (CRP = 31.5 mg/l, ESR = 88 mm/h, fibrinogen = 496,4 mg/dl), nitrogenous retention syndrome (urea = 232 mg/dl, creatinine = 2.66 mg/dl), anemia (Hb = 10.7 g/dl,

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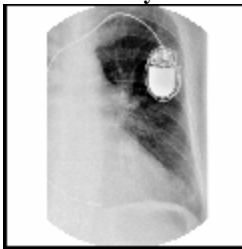
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Ht = 33.3 %), hyperbilirubinemia (total Br. = 1.42 mg/dl, direct Br. = 1.59 mg/dl). Sputum and pharyngeal swabs were also analyzed, because the patient sometimes complained of dry cough, alternating with productive cough, but they were sterile. Dermatologic examination was performed, which established the diagnosis of eczema of upper and lower limbs, xerodermia, and recommended Fluocinolon local therapy 2x1 application/day and on areas with xerodermia Lipikar cream 2x1/day. The abdominal ultrasonography showed dilated suprahepatic veins, a splenic vein of 10 mm, without any other pathological changes. Because of the inflammatory syndrome a thoracic X-ray was taken, showing a homogeneous, poorly limited opacity, with moderate intensity, ~22 mm, localized under the right clavicle, in the apical segment of the right lower lobe, and a lateral plucked costal-diaphragmatic sinus, an accentuated right infrahilar peribronchovascular design, increased (figure no. 2) and opaque hili, a left hilar opacity with a polylobated contour, the heart with left lower spring lengthened, and cardiostimulator (figure no. 3).

Figure no. 2. Right Thoracic X-ray



Figure no. 3. Left Thoracic X-ray



When a pulmonary tumour has a diameter less than 3 cm, it is called a solitary lung nodule, which may be malignant or benign.

Diagnoses which come into play in the case of a solitary lung nodule are:

1. Tuberculoma
2. Pulmonary metastasis of a cancer
3. Incipient lung cancer

Table no. 1. Classification of primary pulmonary tumours

Malignant	Benign
Carcinomas	Laryngotracheobronchial
with small cells	Adenoma
with cells in the "bob oats"	Hamartoma
intermediate cell type	Myoblastoma
combined type	Papiloma
without small cells	Parenchimateous
adenocarcinoma	Fibroma
adenosquamos	Hamartoma
with large cells	Leiomyoma
with squamous cells	Lipoma
Others	
bronchial glands carcinoma	Neurofibroma/schwannoma
carcinoid	Sclerosing hemangioma
lymphoma	

A pneumological examination was carried out in the Clinic of Pulmonary Diseases, which recommended a bronchoscopy, depending on cardiological assessment, and a chest computer-tomography. The cardiologist recommended avoiding appliances which create a magnetic field near the pacemaker. The thoracic CT scan described a spiculated tissue node, situated postero-basal in the LUL in contact with the pleura, a subpleural lung node postero-basal in the LIL and mediastinal adenopathy. Itching is the most common cutaneous symptom in patients with cancer and it may occur also facial congestion, probably linked to the vasoactive circulating substances generated by the tumour (prostaglandins), both present in our patient. For an exact diagnosis further investigations would be required, as well as the histopathological examination of the lung bioptic sample obtained surgically. In patients with productive cough, samples of matinal sputa may contain high concentrations of malignant cells, but the productivity of the method is 50 %, and in our case we did not obtain isolated malignant cells. Bronchoscopy is used frequently in lung cancer diagnosis. Diagnosis is established in 90-100% of cases, if combined with broncho-alveolar washing, endobronchial brushing, fine needle aspiration with direct viewing of the endobronchial and lymph lesions. The multiple diseases of our patient contra-indicated bronchoscopy and pulmonary biopsy in this case. We requested an oncological examination, which recommended that the patient should be taken in charge by an Oncology Committee and which established the diagnosis of right broncho-pulmonary cancer in stage IV and recommended symptomatic therapy. The patient was discharged with the recommendation to continue chronic medication for cardiac and renal diseases and for itching we recommended antihistaminic therapy of second generation in high doses (Aerius 5mg, 3x1tb/day) and first generation antihistaminic therapy (Clorfeniramin 4 mg,1tb/day), body milk without parabens or perfume (Lipikar locally).

Cutaneous itching may occur sometimes as a passing symptom of short duration, but it can also be a symptom which appears in serious diseases, such as in this case.

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