An Uncommon Clue to the Diagnosis of Multiple Myeloma

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LEARNING OBJECTIVE

OBJECTIVE: Recognize the characteristic skin lesions of follicular spicules as a rare but highly specific manifestation of multiple myeloma.

CASE PRESENTATION

An 87-year-old female with no significant medical history presented with several months of progressive back pain and difficulty ambulating. Her family members had also noticed an evolving rash on her face, chest, and back. She had mild dyspnea but denied fevers, chills, unusual fatigue, or unintentional weight loss.

HPI

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LABS & IMAGING

Hgb: 10.5 g/dL [ref 8.6-10.3]
Serum Cr: 0.71 mg/dL [ref 0.6-1.2]
Albenin: 2.3 g/dL [ref 3.5-5.7]
Calcium (corrected): 10.3 mg/dL [ref 8.6-10.3]
Total Protein: 10.8 g/dL [ref 6.4-8.9]
Protein Gap: 8.5 g/dL [ref <4]
SPEP, UPEP: positive for monoclonal IgG spike
Skin Biopsy: hair follicles plugged with keratin and eosinophilic material
CT L-spine: severe compression fracture of L1-2 without evidence of cord compression

EXAM

Vitals: Afebrile, normotensive, normal heart rate. Mildly hypoxic on room air, improved with 2L O2 by NC
Cardiac and Pulmonary Exam: unremarkable
Abdominal Exam: unremarkable
Musculoskeletal Exam: + midline tenderness to palpation in lumbar region
Neurologic Exam: motor exam significantly limited by pain. Reflexes normal; no sensory deficits.
Skin Exam: numerous follicular and papular lesions, some resembling frost, covering both sides of the face, upper back, and chest.

CLINICAL COURSE

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DISCUSSION

• A number of malignancies may present with skin manifestations, either due to direct tumor infiltration or paraneoplastic immune phenomena. However, skin involvement is uncommon in multiple myeloma (MM).
• Follicular spicules is a rare cutaneous manifestation of MM; approximately 10 total case reports have been published.
• Lesions result from deposition of abnormal monoclonal protein in follicular epithelium.

CONCLUSIONS

• The lesions are characteristically located on the face.
• The differential diagnosis includes trichodyplasia spinulosa, a polyomavirus-associated condition seen in HIV-positive patients.
• Biopsy typically reveals intercellular deposits of eosinophilic material in follicular epithelium. Immunofluorescence, if performed, will indicate the presence of immunoglobulin.

REFERENCES


Skin biopsy from a patient with MM and follicular spicules (1).

Additional papular lesions on our patient's trunk and back. Acute L1-L2 vertebral compression fractures.