TUMORAL CALCINOSIS: A RECALCITRANT PAINFUL CONDITION

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• Tumoral Calcinosis

• Hereditary – primary disease

• Massive ectopic calcium deposits – periarticular – large joints
  • Normal calcium ± hyperphosphatemia

• Stiffness, edema, pain

• Treatment ➔ surgical resection
  • Unfortunately often recur
  • Risk of wound complications, poor healing, infection
CASE PRESENTATION

• 40 y/o male
  • Diagnosed at 9 y/o
  • >60 surgeries before he reached 30 y/o
    • Hips, shoulder, elbow, cervical/lumbar spine debulking

• Pain
  • Multifocal, constant, mixed nociceptive and neuropathic
  • Associated fatigue, poor appetite, decreased range of motion
  • Medical management
    • Opioids (hydrocodone/apap, morphine sulfate), gabapentinoids, nsaids (naproxen)

• Stable (~6 years)
  • Right arm numbness, arm weakness, increased pain
CASE PRESENTATION
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• Calcified mass C2-C7, extension to T9
• Underwent surgical resection
  • Neurosurgery: excision right paraspinal mass (20 x 10 x 10 cm)
  • Head/neck surgery: radical neck dissection
  • Plastic surgery: trapezius, SCM muscle flaps

• Pain management
  • Added tizanidine for muscle spasm (needed for ~6 months)

• Multidisciplinary team
  • Medical: Oncology, endocrinology, phys med rehab, pain medicine
  • Surgical: Orthopedics, neurosurgery, head and neck, plastics
• Younger sister with same disease, similar complaints (more small joint involvement) with multifocal mixed pain

• Multi-modal pain management
  • Opioids, neuromodulators, NSAIDs
  • Interventions – peripheral and neuraxial
  • Surgical resections
• Tumoral calcinosis
  • Term used erroneously for any calcified tissue – familial tumoral calcinosis
  • Autosomal recessive, higher prevalence in African American families

• Pathogenesis
  • Increased phosphate absorption in proximal tubules
  • Decreased FGF23 = decreased phosphate excretion
  • Increased calcitriol, more calcium resorption from gut, ± bone
    • Normal calcium, PTH
  • Calcium-Phosphate complex forms – deposits in tissue

• Treatment
  • Low phosphorus diet, ± acetazolamide to increase excretions
  • Surgical resection of calcified masses
CONCLUSION

• Complex disease = complex treatment
  • Awareness of pathogenesis
  • Awareness of progression, prognosis
  • Awareness of treatment options and related complications

• Importance of multidisciplinary pain management


• Stubbs JR, Yu ASL. Overview of the causes and treatment of hyperphosphatemia. In: UpToDate, Post, TW, Editor. UpToDate, Waltham, MA, 2015.