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Food Associated With Worsening Lower Limb Diabetic Neuropathy

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BACKGROUND

- Up to 60% of patients living with type 2 diabetes (T2DM) develop peripheral neuropathy.
- Risk factors:** Hyperglycemia, metabolic syndrome, duration of T2DM, hypertension.
- Chronic hyperglycemia can produce a proinflammatory state.
- Chronic inflammation is linked chronic pain syndromes, including diabetic neuropathy.
- There is limited evidence for the effect of dietary interventions on neuropathic pain.
- This case highlights the connections between diet, inflammation, and diabetic neuropathy.

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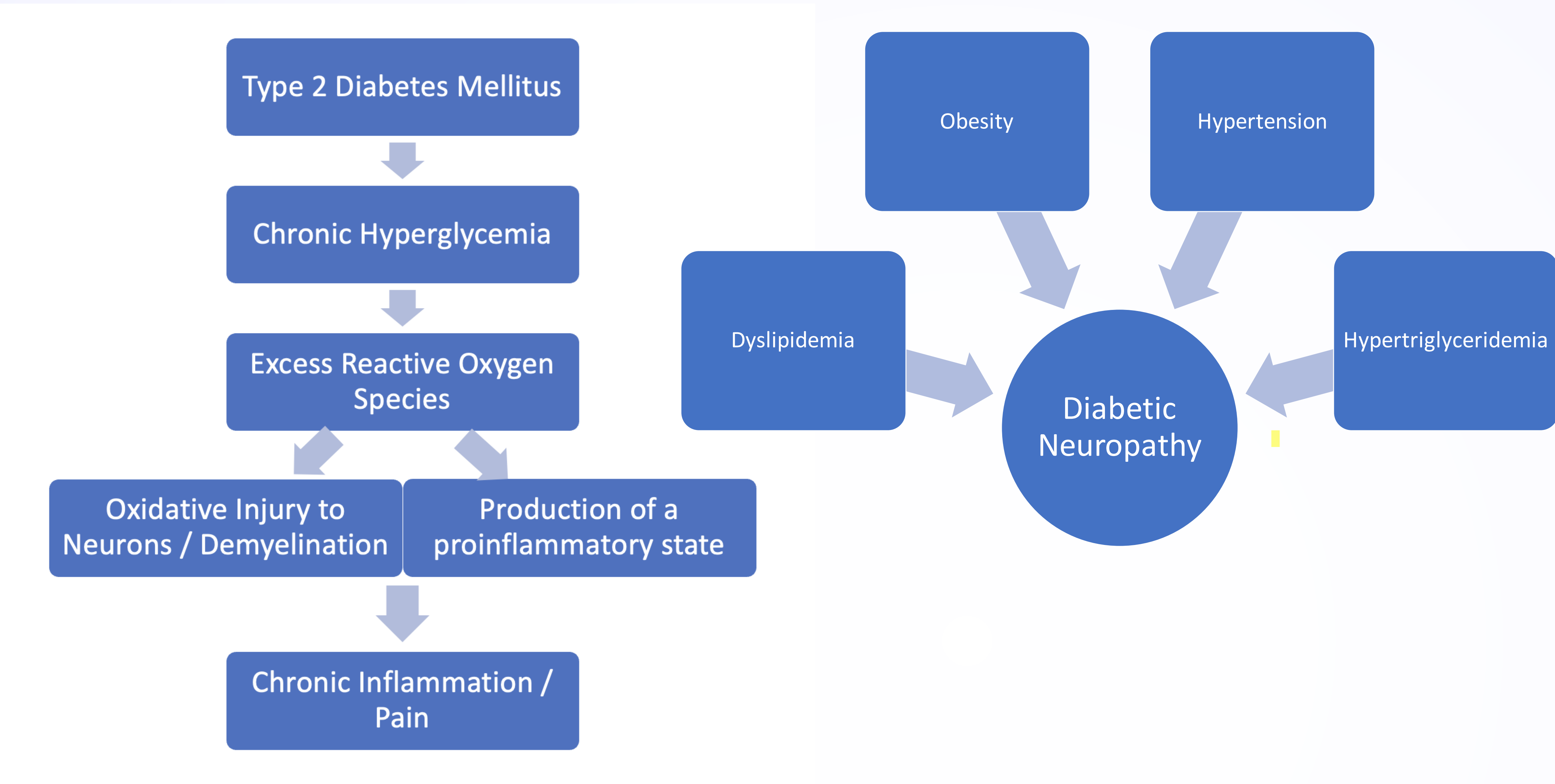
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PATHOPHYSIOLOGY



CASE DESCRIPTION

- 55yo M with poorly controlled insulin dependent T2DM, dysphagia, and chronic pancreatitis with severe peripheral neuropathy
- Symptoms:** Constant numbness and burning in his feet bilaterally, radiation into calves
- Exacerbating factors:** Eating, especially cake or bacon, plain vegetables are only food that do not exacerbate pain.
- Current medication regimen:** gabapentin 600/600/900 mg, duloxetine 30 mg daily without relief
- Tried medications:** diclofenac 1% topical gel, ibuprofen, acetaminophen, tramadol 50 mg TID PRN with some efficacy.
- Workup:** gastric emptying scan, EGD, and colonoscopy
- Plan:** Endocrinology, limiting processed foods, and integrative medicine referral.

DISCUSSION

- Diabetic neuropathy relief is often through improvement of glycemic control through lifestyle modifications
- Low-fat vegan, vegetarian, and high anti-inflammatory diets have been shown to improve glucose control
- RCTs have shown efficacy of a low-fat plant-based diet and supplementation with nano-curcumin for significant reductions in neuropathic pain.
- More research is necessary to elucidate the role of anti-inflammatory diets or diets low in processed foods for the treatment of diabetic neuropathy.
- Worsening pain after eating foods other than unprocessed fruits and vegetables highlights the role that inflammation may play in the development and persistence of chronic pain syndromes.
- An integrative approach in addition to traditional medication management is crucial in the management of painful diabetic neuropathy.

