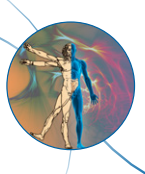


SESSION 1
BIOLOGICS: MATCHING DRUGS TO PATIENTS

Interactive Case Presentation

CASE 1

Priya is a 42-year-old director at an IT company. She travels extensively for work and is starting an executive MBA in eight weeks.

She was diagnosed five years ago with left-sided ulcerative colitis. She has been maintained on 5-ASA 3 g/day PO plus 5-ASA enemas on demand. Over the last eight months, she has required three prednisone tapers. Thiopurines were discussed, but she was not comfortable with their safety.

Colonoscopy 3 months ago: Mayo 3 disease extending to the splenic flexure with relative rectal sparing and a small cecal patch.

Labs from last week:

- Hb 118 g/L (MCV 82 fL)
- CRP 22 mg/L
- Fecal calprotectin 540 mcg/mL

Decision Node 1

- What therapy would you recommend?
  a. IV anti-TNF (infliximab)
  b. SC anti-TNF (adalimumab or golimumab)
  c. Anti-IL-12/23 (ustekinumab)
  d. Anti-integrin (vedolizumab)
  e. JAK inhibitor (tofacitinib)
  f. I am agnostic and would let the patient choose

She was started on biosimilar infliximab as per her private insurance company's tiering. She responded well clinically, biochemically and endoscopically. Her MBA progressed well. However, her symptoms returned after nine months, with elevated inflammatory markers.

Therapeutic drug monitoring (TDM) revealed an undetectable trough infliximab level and low-titre anti-drug antibodies.

Decision Node 2

- What therapy would you recommend next?
  a. Increase infliximab to 10 mg/kg
  b. Add methotrexate to infliximab
  c. Switch to SC anti-TNF (adalimumab or golimumab)
  d. Switch to anti-IL-12/23 (ustekinumab)

e. Switch to anti-integrin (vedolizumab)
f. Switch to JAK inhibitor (tofacitinib)
g. I am agnostic and would let the patient choose

CASE 2

Tanya is a 29-year-old tattoo artist. She was diagnosed with Crohn's colitis three years ago. She was treated with sulfasalazine and several courses of oral budesonide. She also adopted a specific carbohydrate diet and uses CBD oil regularly to control symptoms and improve sleep. Medical history includes asthma and depression.

At a scheduled colonoscopy, you found deep serpiginous ulceration in the rectum, distortion of the cecum, and extensive aphthous ulceration in the ileum to at least 10 cm.

She refused systemic steroids, as she had a bad experience when treated with them for asthma as a child.

Decision Node 3

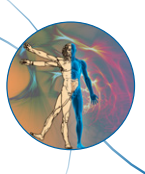
- What treatment would you recommend?
  a. IV anti-TNF (infliximab)
  b. IV anti-TNF (infliximab) with azathioprine
  c. SC anti-TNF (adalimumab or golimumab)
  d. Anti-IL-12/23 (ustekinumab)
  e. Anti-integrin (vedolizumab)
  f. I am agnostic and would let the patient decide

Tanya chose to start on vedolizumab, as she found its safety profile to be appealing. She also heard it would soon be available for self-injection. She does well clinically.

She attends her colonoscopy scheduled after one year of vedolizumab. She has residual erythema and scarring, but no ulceration. In the recovery room she is excited to tell you that she is engaged and wants to have children soon.

Decision Node 4

- What would you do?
  a. Continue on vedolizumab
  b. Stop vedolizumab and "see what happens"
  c. Switch to IV anti-TNF (infliximab)
  d. Switch to SC anti-TNF (adalimumab or golimumab)
  e. Switch to anti-IL-12/23 (ustekinumab)



CASE 3

Bruce is a 65-year-old mining engineer, looking forward to retirement.

He has a 25-year history of pan-ulcerative colitis. He was treated with golimumab until two years ago, when his disease reactivated despite biweekly dosing and TDM showing no anti-drug antibodies. He was then switched to ustekinumab, but has persistent active disease despite recent intravenous reinduction and escalation to dosing every four weeks.

Medical history includes previous actinic keratoses, hypertension and seronegative arthritis.

Decision Node 5

- What treatment would you recommend?
  - a. Switch to IV anti-TNF (infliximab)
  - b. Switch to IV anti-TNF (infliximab) plus azathioprine
  - c. Switch to SC anti-TNF (adalimumab)
  - d. Switch to anti-integrin (vedolizumab)
  - e. Switch to JAK inhibitor (tofacitinib)
  - f. Refer for colectomy
  - g. I am agnostic and would let the patient decide