A DIFFERENT TUNE:
Patient-Centered Treatment of
PSORIASIS AND PSORIATIC ARTHRITIS

PRE- AND POSTTEST
WITH EXPLANATIONS

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**QUESTION 1**

33-year-old Mr. Smith presents to your clinic with a five-year history of psoriasis without psoriatic arthritis (PsA). Over the past year, his psoriasis has spread to involve 11% of his body. He has tried multiple topical steroids and topical vitamin D agents without substantial improvement. He is curious how interleukin (IL)-17 class of medications compare to ustekinumab in terms of efficacy. Your advice is that IL-17 class of medications, specifically secukinumab and brodalumab, have been shown to be:

A. Inferior to ustekinumab in short-term head-to-head clinical trials.
B. Equivalent to ustekinumab in short-term head-to-head clinical trials.
C. Superior to ustekinumab in short-term head-to-head clinical trials.
D. Superior to ustekinumab in long-term head-to-head clinical trials.

**Explanation:** Short-term (less than 16 weeks) head-to-head trials have shown that secukinumab and brodalumab are more efficacious when compared to ustekinumab. Indirect comparison of ixekizumab vs ustekinumab showed that ixekizumab appears to be superior in the short-term. Long-term head-to-head data are not available comparing the IL-17 class of medications to ustekinumab at this time. However, in selecting an appropriate agent for individual patients, a patient’s comorbidities, preferences, and long-term efficacy and safety of biologics must be taken into account during treatment selection. Ustekinumab has a longer safety record compared to the IL-17 class of medications, and it has the fewest number of injections of all biologics currently approved for psoriasis.

**References**


**QUESTION 2**

Ustekinumab is used in the treatment of psoriasis, PsA, and Crohn’s disease. It is a monoclonal antibody to:

A. IL-17.
B. IL-12 and IL-23.
C. IL-23.
D. Tumor necrosis factor receptor-alpha (TNF-α).

**Explanation:** Ustekinumab blocks IL-12 and IL-23.

**Reference:** Stelara (ustekinumab), package insert, US.

**QUESTION 3**

Which of the following information is most important to consider when selecting targeted therapy for patients with moderate to severe psoriasis?

A. HbA1c level.
B. History of infections and malignancies.
C. Lipid levels.
D. Occupational history and exposure risk.
E. Recent travel history.

**Explanation:** It is important to obtain a thorough medical history to assess for past infections and malignancies as this can significantly impact treatment choice. Patients with a history of internal malignancy or high-grade melanoma may not be appropriate candidates for biologic therapy. If patients develop internal malignancy or melanoma while on a biologic, they may consider alternative therapies other than biologic. This is because in most clinical trials with biologic medications, patients with a history of nonmelanoma skin cancers are excluded. Patients with a history of certain infections, such as hepatitis B, may not be appropriate candidates for TNF-α blockers. Patients with active tuberculosis (TB) are not candidates for biologic therapies and must be treated adequately before biologic therapies can be
considered. Those with latent TB can initiate anti-TB therapies and then commence biologic therapies. For patients with active infections and a history of malignancy, providers should consider consultation with the patient’s infectious disease or oncology provider prior to selecting an antipsoriatic therapy.


**QUESTION 4**

Three months after Ms. Lorenzo initiated secukinumab, she returns for a follow-up skin exam. You are pleased to see that Ms. Lorenzo’s psoriasis has improved significantly. However, you found an accumulation of a layer of white substance on the buccal mucosa that is like curdled milk. What is the next appropriate course of action?

A. Look for presence of Wickham’s striae and administer oral topical steroid gel.

B. Obtain a mucosal biopsy of the lesion.

C. Reassure patient that this is a mucosal manifestation of his psoriasis and observation is the appropriate course of action at this time.

D. **Scrape the lesion with a tongue blade to remove the film and collect sample for microscopic examination.**

**Explanation:** This patient has oral candidiasis. Oral candidiasis is a known adverse effect associated with monoclonal antibodies to IL-17 ligands and receptors. It is typically diagnosed from clinical appearance alone. The most common type of oral candidiasis is the pseudomembranous type, also commonly known as thrush. Pseudomembranous oral candidiasis is characterized by a layer of white slough that can be easily removed to reveal the underlying erythematous mucosa. The white material consists mostly of desquamated epithelium that has been invaded by the yeast cells and hyphae to the level of the stratum spinosum. Oral candidiasis is usually asymptomatic.

Diagnostic work up for oral candidiasis includes gently scraping the lesion with a tongue blade to attempt to remove the slough and collect the sample for microscopic examination for fungal forms. Oral swabs can be taken if culture is recommended. Oral candidiasis can be treated with oral fluconazole or oral nystatin suspension. Treatment failure with oral nystatin suspension is more common than with oral fluconazole because full contact of the affected areas with the nystatin suspension is necessary to treat the oral candidiasis completely.


**QUESTION 5**

Mr. Bright is doing well on methotrexate for his moderate plaque psoriasis. At his recent follow-up visit, he reports that he is having stiffness and pain in his feet when he first gets up in the morning. He also reports lower back stiffness. Upon examination, you notice that he has pitting in several of his fingernails and that he has tenderness when palpating his Achilles tendons. What is your next step?

A. You recognize that the joint pain is a known side effect of methotrexate and recommend that the patient stop methotrexate and initiate muscle relaxants.

B. You suggest that the patient schedule an appointment with his primary care provider to obtain a bone scan and assess for osteopenia, a potential side effect of methotrexate.

C. You obtain an initial bone scan and initiate vitamin D and calcium supplementation.

D. **You suspect that the patient has symptoms of early PsA and decide to stop methotrexate and initiate a TNF-α blocker to help control both skin and joint symptoms.**

**Explanation:** PsA often presents as pain and stiffness in the hands, feet, and back upon wakening with improvement after 30 minutes to an hour. Nail pitting and enthesitis are also common indicators of psoriatic inflammation. Methotrexate is often used as a first-line treatment for PsA and is not associated with worsening joint disease or osteopenia. A work up for osteopenia or vitamin D/calcium replacement is not helpful in this scenario as his issue is related to systemic inflammation. TNF alpha blockers are FDA approved for both psoriasis and PsA and are often used as first-line treatment for both conditions.

QUESTION 6

26-year-old Mr. Brown with psoriasis is recently diagnosed with PsA. He has only peripheral disease and no axial disease, but he has enthesitis. What is the best initial treatment for Mr. Brown?

A. Combination methotrexate and TNF inhibitor (TNF-i).
B. Methotrexate.
C. Sulfasalazine.
D. TNF-i.

Explanation: According to the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) recommendations, TNF inhibitors are the first-line therapy for enthesitis-related PsA. There are no data to support initial treatment for PsA using a combination of methotrexate and a TNF inhibitor. This combination should be considered if the patient needs step-up treatment for his arthritis in the future.


QUESTION 7

40-year-old Mrs. Dogmond has active polyarticular PsA and active psoriasis with thick plaque on her scalp, elbows, and knees, despite being on infliximab 8 mg/kg, every six weeks, methotrexate 25 mg sq weekly for four months, through the step-up therapy process. Initially her active joint count was 12, now she is down to 4. She weighs 101 kg. What is the next best step to get her to minimum disease activity for PsA and treat her psoriasis as well?

A. Add sulfasalazine.
B. Change the infliximab to every four weeks, but keep the 8 mg/kg.
C. Change to a different monoclonal antibody biologic as she is a primary failure to TNFi.
D. Increase infliximab to 10 mg/kg every six weeks.

Explanation: Decrease the time span between infusions, keeping the same dose. This patient is not a primary failure. She has responded well but not enough. Therefore, it reasonable to maximize infliximab first rather than change her to a different biologic. Case reports show that decreasing the time between infusions works better than increasing the dose.

References
Remicade (infliximab), package insert, US.