Find Me A –mAb

Drug: Taltz (ixekizumab)

"Taltz is a monoclonal antibody that treats adults and children 6 years and older with moderate to severe plaque psoriasis who may benefit from taking injections or pills (systemic therapy) or treatment using ultraviolet or UV light (phototherapy). Taltz is also approved for adult patients with active psoriatic arthritis, adults with active ankylosing spondylitis, and adults with active non-radiographic axial spondylarthritis with objective signs of inflammation." (Eli Lilly and Company, 2019) "Plaque psoriasis is caused by an overactive immune system and is the most common form of psoriasis". (Rodrigo Valdes-Rodriguez, M.D., Shawn G. Kwatra, M.D., Gil Yosipovitch, M.D. ,2018)" The overactive immune system causes skin cells to rapidly build up, forming psoriasis plaques. Why some people develop plaque psoriasis and others don't, isn't fully known, but family history and environmental factors are thought to play a role. The symptoms of plaque psoriasis include itching, burning, bleeding, and stings. Plaque psoriasis can appear anywhere on the body, but it is commonly found on elbows, knees, lower back, and scalp. Taltz treats plaque psoriasis by injecting a protein-based medication that targets specific parts of the immune system. One protein in your body that plays a role in inflammation and skin plaque growth is interleukin-17A (IL-17A). Taltz is a biologic that targets IL-17A and helps to block it. Ankylosing spondylitis is a type of arthritis that causes inflammation in the joints and ligaments of the spine. Axial spondylarthritis is a type of arthritis that affects the joints in the axial skeleton, which includes the chest, pelvic, and spine. Taltz targets and blocks interleukin-17A (IL-17A), which is a protein in your body. Elevated levels of interleukin-17A (IL-17A) are associated with inflammation of the spine and can lead to symptoms of axSpA such as back pain, inflammation, fatigue, and difficulty carrying out daily activities." (Eli Lilly and Company, 2019)



"Taltz (Ixekizumab) is a humanized IgG4 monoclonal antibody that selectively binds with the interleukin 17A (IL-17A) cytokine and inhibits its interaction with the IL-17 receptor. IL-17A is a naturally occurring cytokine involved in normal inflammatory and immune responses. Ixekizumab inhibits the release of proinflammatory cytokines and chemokines. Taltz has a dissociation constant of 1.8 picomolar, which means it has a higher binding affinity. In clinical trials, patients had a higher risk of infections while being on Taltz. Patients had serious hypersensitivity reactions and had a high risk of inflammatory bowel disease. Patients were pre-evaluated for tuberculosis (TB). Patients that have active TB cannot administer the medication. Ixekizumab is produced by recombinant DNA technology in a recombinant mammalian cell line and purified using standard technology for bioprocessing. Ixekizumab is comprised of two identical light chain polypeptides of 219 amino acids each and two identical heavy chain polypeptides of 445 amino acids each and has a molecular weight of 146,158 Daltons for the protein backbone of the molecule." (Eli Lilly and Company, 2019)

References

- Biologic injection medication: PSO, PSA & AXSPA: Taltz® (ixekizumab). Biologic Injection Medication | PsO, PsA & axSpA | Taltz® (ixekizumab). <u>https://www.taltz.com/?utm_source=google&utm_medium=ppc&campaign=2062305999</u> <u>&adgroup=81830157528&ad=671675922634&utm_keyword=kwd-399676022155&utm_id=go_cmp-2062305999_adg-81830157528_ad-671675922634_kwd-399676022155_dev-c_ext-_prd-_mca-_sig-EAIaIQobChMI7Lar1ZHmgQMVFp9aBR0W4w9MEAAYASAAEgKSP_D_BwE&gcli d=EAIaIQobChMI7Lar1ZHmgQMVFp9aBR0W4w9MEAAYASAAEgKSP_D_BwE
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- Lilly to present 5-year sustained efficacy and safety results for Taltz® (ixekizumab) in patients with plaque psoriasis at the World Congress of Dermatology. Eli Lilly and Company. (2019, June 11). <u>https://investor.lilly.com/news-releases/news-releasedetails/lilly-present-5-year-sustained-efficacy-and-safety-results</u>
- 3. Singh JA, Guyatt G, Ogdie A, et al. 2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis. *Journal of Psoriasis and Psoriatic Arthritis*. 2019;4(1):31-58. doi:<u>10.1177/2475530318812244</u>