What is Dry Eye Syndrome?

- DES, also known as keratoconjunctivitis sicca or dysfunctional tear syndrome, is a multifactorial disease of the tears and ocular surface.
- Initial symptoms of DES are gritty, scratchy, itchy, burning, and stinging eyes — and some patients may experience foreign body sensation, however symptoms can worsen to include photophobia and ocular pain, which can reduce visual acuity and result in permanent vision loss.
- DES is widely classified into two major categories — aqueous tear-deficient dry eye (ADDE) and evaporative dry eye (EDE).
- The pathophysiology of DES is multifactorial involving multiple interacting and mutually reinforcing mechanisms. The core mechanisms that cause this ocular disease are tear hyperosmolarity, tear film instability, and blinking reflex abnormalities.

Patient Impact

- Studies have highlighted how DES adversely effects social, physical, and psychological functioning, as well as daily activities and workplace productivity.
- The majority of people with this ocular condition have a mild or moderate level of severity, and can be treated symptomatically with eye lubricating artificial tears, which provide adequate symptom relief.
- DES is a chronic lifelong condition and patients with severe DES must also be vigilant by routinely using artificial tears to manage their DES.

Treatment options

- Most patients begin treatment with OTC artificial tears, which are cost effective, but only offer short term symptomatic relief and those with preservatives can have a detrimental toxic effect.
- Other non-surgical interventions include moisture chamber glasses and therapeutic contact lenses.
- Prescription therapies include cyclosporine to suppress an immune inflammation response and other prescription strength eye drops that need to be administered many times per day.
- Patients with severe cases unresponsive to other therapies can opt to get surgery.

* GlobalData PharmaPoint: Dry Eye Syndrome - Global Drug Forecast and Market Analysis to 2024
Dry Eye Syndrome

Epidemiology

In 2014 there were 414.3 million prevalent cases of DES in the 9MM growing to 460.9 million in 2024 with an average annual growth rate of 1.12%.

Women are about twice as likely to have DES as men with an average global prevalence of 20% and 12% respectively.

DES risk increases 35% each decade after age 40 with age being the most significant risk factor in developing DES.

US prevalence in 2014 was 12.5 million with about 33% of patients having severe DES.

Unmet Needs of Dry Eye Syndrome

- New therapies for Dry Eye Syndrome
- Better diagnostic tools to stratify patients and allow for tailored treatment approach
- Simplified and less frequent dosing of therapies
- Patient education to improve tolerance and compliance
- Raise disease awareness among physicians and patients

About KPI Therapeutics™:

KPI Therapeutics™ focuses on developing game changing drugs for autoimmune diseases. We are commercializing our first-in-class therapeutics in autoimmune and chronic pain through a streamlined process by aligning the interests of partners, investors, and patients.

Our KPI-190 program is developing a topical biologic Kv1.3 inhibitor targeting the immune cells that cause Dry Eye Syndrome.

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