Sleeping Sickness Drug Shows Good Efficacy in Clinical Trial

Fern Wesson (Researcher)

It was recently reported in New Scientist [1] that a new **sleeping sickness** drug had shown promising results in a clinical trial. Sleeping sickness is a **fatal infectious disease** endemic to sub-Saharan Africa. It is caused by a protozoan parasite, *Trypanosoma brucei*, which is transmitted by the tsetse fly. Sleeping sickness is **lethal if left untreated**. It infects the **central nervous system**, causing the characteristic clinical picture – **alterations in sleep timing and quality**, and eventually progressing to **coma and death**.[2]

Effective treatments remain elusive. No vaccines are available, and current treatments are often ineffective and toxic. [2]
BUT…

Sleeping Sickness – Quick Facts

- 55 million people at risk [3]
- Found in 36 African countries [3]
- Rural areas most at risk[5]

Centers for Disease Control and Prevention [4]

"**The WHO** has targeted West African trypanosomiasis for elimination as a public health problem by 2020. The final goal will be **sustainable disease elimination by 2030.**"

A recent clinical trial has shown promising results with a new treatment.

Efficacy and safety of acoziborole in patients with human African trypanosomiasis caused by *Trypanosoma brucei gambiense*: a multicentre, open-label, single-arm, phase 2/3 trial [5]

Objective

- ❖ Investigate the efficacy and safety of **oral acoziborole** in treating patients with sleeping sickness caused by the *Trypanosoma brucei* parasite.

Methods

- ➢ A clinical trial enrolling 208 individuals over 15 years old (mean age 34 years), with **sleeping sickness**.
- ➢ Patients were treated with **960mg oral acoziborole** and **followed for 18 months**.
- ➢ Treatment success and adverse events were recorded.

Results

- ✓ Oral acoziborole showed **good treatment success** in both early/intermediate stage, and late stage disease populations (see table).
- ✓ In total, 75% (155/208) patients (overall population) experienced treatment-emergent **adverse effects**. However, **93% of these were mild or moderate**.

Treatment success rates of 960 mg acoziborole in early, intermediate, and late stage sleeping sickness [5]

Disease stage	Treatment success at 18 months
Early - intermediate stage disease	**100%**
Late stage disease	**95.20%**
Overall	**96.20%**

Take-home point:

- While further trials are needed to confirm safety and efficacy, this is an exciting development towards successful treatment of sleeping sickness, representing a leap not only in improvements in physiological health in developing countries, but also offers economic benefits to rural African communities who are affected by *Trypanosoma* infection in livestock. [2]

References

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