



**Topical rapamycin as a treatment for fibrofolliculomas in BHD syndrome: a double-blind placebo-controlled randomized split-face trial (Gijzen *et al.*, 2014)**

**Lay summary**

**Who wrote this paper?**

A group of ten clinicians from the Netherlands with extensive experience of treating BHD patients.

**Why was the study done?**

Rapamycin is a drug that previously been shown to reduce the appearance of skin lesions in Tuberous Sclerosis Complex (TSC). The genes that cause TSC and BHD work in similar pathways in the cell. This study tested if rapamycin also worked as a treatment for BHD fibrofolliculomas.

**About the study**

19 patients signed up for the trial, and 17 completed the trial. They were each given two face creams, one that contained rapamycin, and one that didn't. Each patient was told to apply one cream to the left side of their face, and the other cream to the right side of their face, every day, for 6 months. Each patient had two appointments with the doctors running the trial, one appointment halfway through the trial, and one at the end of the trial. The doctors took photos and measured fibrofolliculomas to see if they had changed since the beginning of the study. Neither the patient nor the doctor knew which side of the patients' faces was being treated with the drug.

**Study findings**

The study found that rapamycin did not improve the cosmetic appearance or reduce the number of the patients' fibrofolliculomas.

13 patients reported side effects of rapamycin treatment, including a burning sensation, skin redness, dryness and itching.

Therefore, rapamycin is not an effective treatment for fibrofolliculomas.