A new enhanced antibiotic treatment for early and late syphilis

Despite an effective treatment for syphilis is available since the penicillin introduction in the mid-20th century, this disease is still a global health concern with over 12 million new cases occurring each year worldwide. Recently, we have started to doubt the effectiveness of benzathine penicillin G (BPG) for syphilis treatment, based on the published literature concerning BPG serological treatment failures and on the remarkable number of patients with late complications despite adequate BPG therapy.

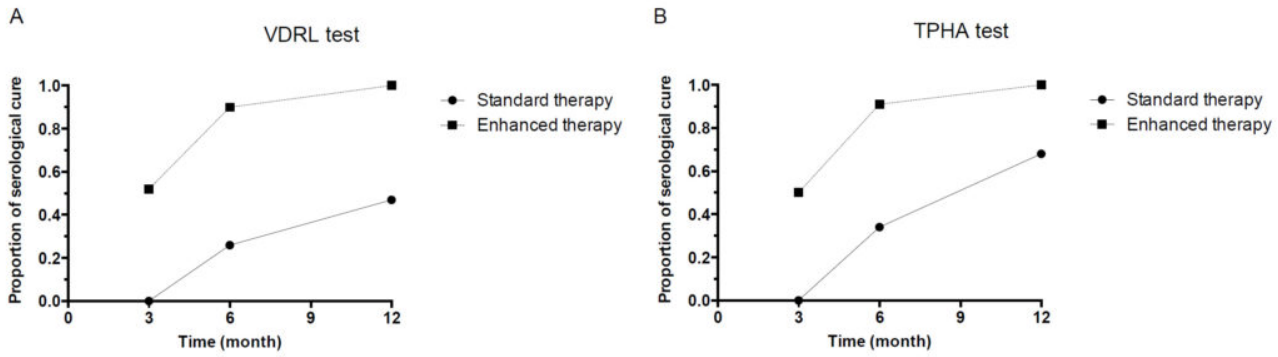

Fig. 1. Comparison of serological response to standard and enhanced therapy by VDRL (A) and TPHA test (B).

To evaluate the efficacy of an enhanced treatment regimen for syphilis with the addition of doxycycline and ceftriaxone to the conventional BPG treatment.

Sixty-nine syphilis patients were recruited and randomly assigned to two groups: group 1 (38 patients) received the standard therapy; group 2 (31 patients) received the enhanced therapy. All patients were followed-up for at least 12 months. They underwent physical examination and serology every 6 months and echocardiography and neurological examination every year. A three- to four-fold decline in the initial venereal disease research laboratory (VDRL) titre within 6 months after therapy was considered serological cure.

At 12 months, 68% of patients in group 1 and 100% in group 2 were serologically cured (p=0.002). During the follow-up, no patients in group 2 experienced complications related to syphilis. By contrast, one patient in group 1 developed neurosyphilis.

The enhanced treatment is more effective than standard treatment and results in a higher and faster cure rate. Moreover, it provides treponemicidal antibiotic levels in the cerebrospinal fluid,

thereby preventing possible late complications.

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