

Dear friends of clinical journal club:

The N Engl J Med image this week shows the mouth of young child pried open to show the teeth. The teeth are green in their lower portions (distal) but white at the tooth base. You are offered congenital hypothyroidism, congenital syphilis, dentinogenesis imperfecta, neonatal hyperbilirubinemia, and Williams (Beuren) syndrome. What are Hutchison's teeth and what is Williams-Beuren syndrome? We review the AIDS debacle. Tenofovir alone or combined with emtricitabine is now advocated for protection against acquiring the virus. This prophylaxis has been shown to be effective in MSM (see last week for this abbreviation) but efficacy for heterosexual men and women has not been shown. In the first study, HIV positive persons were sought who had an HIV negative partner. The HIV negative partner was randomized to tenofovir without or with emtricitabine, or placebo. First, transfer of HIV was surprisingly low (4% over 3 years), but active prophylaxis decreased HIV transfer by 60% down to less than 2% over 3 years. The effect was seen in all subgroups. In the second study, HIV-negative African women were randomized to tenofovir+emtricitabine or placebo. Again, the occurrence of HIV was about 5% over 1 year. However, the study was stopped because of lack of efficacy in the treatment group. The compliance to treatment by these women was terrible, which probably accounts for the negative result. The third study of the same question was performed in Botswana, where the HIV-positive incidence of young adults is about 40%. HIV-negative men and women were assigned to the same prophylaxis or placebo. The follow-up was for 180 weeks and again HIV conversion was reduced by about 60 percent. Bone density was measured and the prophylaxis reduced bone density. The next study concerned receptor-positive breast cancer in post-menopausal women. Here, an antiestrogen therapy is warranted and aromatase inhibitors are commonly prescribed (or tamoxifen). An additional option is fulvestrant, which occupies the estrogen receptor and causes its down-regulation. The women were randomized to anastrozole alone or anastrozole plus fulvestrant. The combination was superior to the single treatment. We review the clinical course of a 48 year-old professor who gets pneumonia after a holiday in the San Joaquin valley (central California). We learn that it is wise to stay away from mice (unless they live in the MDC facility). In the Lancet, we inspect a study of linagliptin compared to glimepiride in patients with Type 2 diabetes. Both reduced HbA1C. Which increased beta-cell calcium and which increased glucagon-like peptide 1? We inspect a trial of 2-week or 7-day treatment of pyelonephritis with ciprofloxacin. Then, we learn why polio immunization is not effective in

Afghanistan and Pakistan. A hint – it is not related to poor efficacy of the immunization. We then learn that use of CT scans in children to deliver cumulative doses of about 50 mGy might almost triple the risk of leukemia and doses of about 60 mGy might triple the risk of brain tumors. We close out with a case of risus sardonicus in an old woman with lymphoma and rituximab. What do SNARE proteins have to do with this disease? Please join me for all the excitement this Wednesday at 17:00 or via the Internet.

Yours,

Fred Luft

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