Journal Scan:

Effects of testosterone treatment in older men

Authors recruited 790 men equal to or above 65 years of age with testosterone < 275 ng per deciliter and symptoms suggestive of hypogonadism to receive either testosterone gel or placebo for a year. Each man participated in one or more of three trials — the Sexual Function Trial, the Physical Function Trial, and the Vitality Trial.

Testosterone treatment resulted in significantly increased sexual activity on the Psychosexual Daily Questionnaire (P<0.001), increased sexual desire and erectile function. The proportion of men who had an incrementof at least 50 m in the 6-minute walking distance did not differ significantly between the two study groups in the Physical Function Trial but did differ significantly when men in all three trials were included (20.5% of men who received testosterone vs. 12.6% of men who received placebo, P=0.003). Testosterone had no effect on vitality, as assessed by the Functional Assessment of Chronic Illness Therapy–Fatigue scale, but men on testosterone had slightly better mood and lower severity of depressive symptoms in comparison to placebo treated patients . Adverse events in testosterone arm were similar to that in placebo arm.

Comments

Androgen deficiency in the aging male (ADAM) is an increasingly prevalent problem because of the increase in the proportion of the elderly in the population as well as in the prevalence of obesity- a patient factor particularly associated with androgen deficiency. Symptoms may include low libido, erectile dysfunction, osteoporosis, depressed mood, lethargy and poor physical performance. The present study shows that in patients who sre symptomatic and having testosterone < 275 ng/dl , testosterone replacement may positively impact sexual function and mood . However authors have noted that the sample size was too small to comment on side effects. Therefore physicians should consider treatment for symptomatic androgen deficiency on an individualized basis while maintaining due vigil for side effects.

Snyder PJ, Bhasin S, Cunningham GR, Matsumoto AM, Stephens-Shields AJ, Cauley JA, Gill TM, Barrett-Connor E,Swerdloff RS, Wang C, Ensrud KE, Lewis CE, Farrar JT, Cella D, Rosen RC, Pahor M, Crandall JP, Molitch ME, Cifelli D,Dougar D, Fluharty L, Resnick SM, Storer TW, Anton S, Basaria S, Diem SJ, Hou X, Mohler ER 3rd, Parsons JK, Wenger NK, Zeldow B, Landis JR, Ellenberg SS;Testosterone Trials Investigators. Effects of testosterone treatment in older men. N Engl J Med 2016;374:611-24.

Bedaquiline in the treatment of multidrug- and extensively drug-resistant tuberculosis

This is a phase 2, multicenter, open-label study carried out to assess the safety and efficacy of bedaquiline, a new drug for MDR-TB . There was no control arm in the study.Two hundred and thirty three patients were recruited of which, 63.5% had MDR-TB, 18.9% had pre-XDR-TB and 16.3% had XDR-TB. Patients recieved bedaquiline for 24 weeks on a background regimen of existing anti-TB drugs being taken as per current National TB guidelines .Patients were followed up for 120 weeks . 16 patients (6.9%) died while 20 patients (8.6%) discontinued before week 24, mainly due to adverse events or MDR-TB-related events. In the efficacy population (n=205), culture conversion was 72.2% at 120 weeks, and 73.1%, 70.5% and 62.2% in MDR-TB, pre-XDR-TB and XDR-TB patients, respectively.Bedaquiline added on to a background regimen was well tolerated.

Online access
http://svimstpt.ap.nic.in/jcsr/apr-jun16_files/js16.pdf

Comment

Bedaquiline, a new drug for tuberculosis is currently approved only for the treatment of MDR-TB. It has come as a new anti-TB drug in clinical practice after a long gap of nearly 40 years.It is a diarylquinoline compound that specifically inhibits the proton pump of mycobacterial adenosine triphosphate (ATP) synthase and is cidal to both dormant and replicating mycobacteria. The dose for pulmonary MDR-TB, is 400 mg daily for 2 weeks, followed by 200 mg three times per week.Published maximum duration of treatment, as it was in this study also is 24 weeks. The main drawback of the present study was that it was not placebo controlled, probably for ethical reasons. However comparison with the well known downhill natural course of MDR TB, suggests that the drug is indeed efficacious.However concerns have been raised about hepatotoxicity (approximateky in 5% of patients), prolongation of the corrected QT interval and a reported higher mortality in pooled analysis of phase 2 trials. More trials are need to assess safety and pharmacokinetics in different populations and racial groups.

Pym AS, Diacon AH, Tang SJ, Conradie F, Danilovits M, Chuchottaworn C, Vasilyeva I, Andries K, Bakare N, De Marez T, Haxaire-Theeuwes M, Lounis N, Meyvisch P, Van Baelen B, van Heeswijk RP, Dannemann B; TMC207-C209 Study Group. Bedaquiline in the treatment of multidrug- and extensively drug-resistant tuberculosis. Eur Respir J. 2016;47:564-74.

Local transmission of Zika virus

On December 31, 2015, Puerto Rico Department of Health (PRDH) reported an index case of Zika virus disease in a patient from Southeastern Puerto Rico. In the time period, November 23, 2015-January 28, 2016, passive and enhanced surveillance for Zika virus disease resulted in identification of 30 laboratory-confirmed cases. Most (93%) patients resided in Eastern Puerto Rico or the San Juan metropolitan area. The most frequently reported signs and symptoms were rash (77%), myalgia (77%), arthralgia (73%), and fever (73%). Three (10%) patients were hospitalized. One case occurred in a patient hospitalized for Guillain-Barré syndrome, and one occurred in a pregnant woman.

Comments

Zika virus a member of Flaviviridae virus family is an arbovirus similar to Dengue, Yellow Fever, Japanese Encephalitis and West Nile fever viruses. Like them it is transmitted by the bite of Aedes mosquitos like *A. albopictus* and *A.aegypti.* The present study describes the nonspecific nature of the symptoms in Zika Fever (caused by this virus) during an ongoing outbreak of this virus infection in Latin America and the Carribean. The association with Guillain – Barre has been previously described. But the most worrisome problem described in this epidemic has been the observed increase in the incidence of microcephaly in affected countries after the onset of the current outbreak. Transplacental transmission to the foetus has been demonstarted by isolation of virus from amniotic fluid as well as recovery of the complete genome of zika virus from the brain of a medically aborted foetus affected by microcephaly.Public health continues to remained challenged by the spread of new and exotic viruses to populations and places previously unaffected-a bane of a smaller world.

Thomas DL, Sharp TM, Torres J, Armstrong PA, Munoz-Jordan J, Ryff KR, Martinez-Quiñones A, Arias-Berríos J, Mayshack M, Garayalde GJ, Saavedra S, Luciano CA, Valencia-Prado M, Waterman S, Brenda Rivera-García B. Local transmission of Zika virus- Puerto Rico, November 23, 2015-January 28, 2016. MMWR Morb Mortal Wkly Rep 2016;65place_Holder_For_Early_Release:154-58.

Reviewers

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