First ever disease-modifying drug for osteoarthritis

Strontium ranelate (Protelos) reduced structural progression of knee joint osteoarthritis by one third, found a trial presented at the European Congress of Osteoporosis and Osteoarthritis in Bordeaux, France, 21–24 March 2012. The study, showing reductions in joint space narrowing, is the first to demonstrate a disease-modifying effect in osteoarthritis. Furthermore, strontium ranelate, a drug already licensed for the treatment of osteoporosis, delivered beneficial effects on pain, function and mobility.

'After years of labouring to manage patients with blunt tools we finally have something that allows us to alter the natural history of the disease,' said Professor Cyrus Cooper, the lead investigator from the Universities of Oxford and Southampton. 'It could reduce or even eliminate the need for expensive and painful joint surgery.'

In the phase III study between April 2006 and February 2011 1683 patients with knee osteoarthritis, whose mean age was 62.8 years, were randomized to receive strontium ranelate 2 g/day (n=566), strontium ranelate 1 g/day (n=558) or placebo (n=559). Patients were recruited from 98 centres in 18 countries.

Results at 3 years show that, in comparison with placebo, the space between the joints was 33% wider (less narrow) for patients receiving the 1 g dose (P<0.001) and 23% wider (P=0.012) in those receiving the 2 g dose.

Both doses significantly decreased the number of participants reaching >0.5 mm loss of joint space, a threshold known to place patients at a fivefold increase in the risk of undergoing joint replacement surgery over the next 5 years. For the 1 g dose the risk was reduced by 34% (P=0.049); while for the 2 g dose the risk was reduced by 44% (P=0.008).

Furthermore, strontium ranelate 2 g significantly reduced the WOMAC score (a global score taking into consideration osteoarthritis pain, function and mobility) in comparison with placebo (P=0.045). The 1 g dose had a non-significant effect on WOMAC score.

'Clearly the 2 g dose is needed to obtain the beneficial effects on pain and stiffness,' said Dr Jean-Yves Reginster, the study presenter, from the University of Liège, Belgium. The 2 g dose is currently used to treat osteoporosis.

Commenting on the study, Dr Mike Stone, a geriatrician from University Hospital, Llandough, Wales, said: 'This is the first time we've seen data confirming a slowing of the progression of osteoarthritis with any agent. While clearly a milestone development, we'll need a health economics analysis to understand how widely we should be using the drug. Clearly such an analysis should take into account benefits from osteoarthritis and osteoporosis.'

Janet Fricker

Reginster JY, Chapurlat R, Christiansen C et al (2012) Structure, modifying effects of Strontium Ranelate in Knee Osteoarthritis. Abstract number OC3. European Congress of Osteoporosis and Osteoarthritis (IOF-ECCEO), Bordeaux, France: 21–24 March

Combination therapy improves male lower urinary tract symptoms and quality of life

Phase III data from the NEPTUNE study, announced at the European Association of Urology congress in Paris, demonstrated that a fixed dose combination therapy of tamsulosin and solifenacin (EC905) improved lower urinary tract symptoms in men with both voiding and storage symptoms aged 45 years and over, compared with both placebo and tamsulosin monotherapy (Drake et al, 2012).

EC905 is a once-daily, fixed dose combination tablet containing tamsulosin OCAS and solifenacin which is being developed to treat both lower urinary tract voiding and storage symptoms in males.

The study was a 12-week, randomized, double-blind, multicentre trial which evaluated the efficacy and safety of fixed dose combination tablets containing tamsulosin and solifenacin in 1334 men with lower urinary tract symptoms with a substantial storage component.

Patients were randomized to one of four groups: placebo, tamsulosin OCAS (0.4 mg) alone, tamsulosin OCAS (0.4 mg) + solifenacin (6 mg) and tamsulosin OCAS (0.4 mg) + solifenacin (9 mg).

All three treatment groups showed statistically significant improvements in the co-primary end points, achieving a mean reduction in the total urgency score per 24 hours compared with placebo (P<0.001).

Professor Marcus Drake, Senior Lecturer in Urology, University of Bristol, Bristol

Moreover, the combination of tamsulosin OCAS (0.4 mg) + solifenacin (6 mg) was statistically significantly superior to tamsulosin OCAS alone (P<0.05). Both doses of combination therapy and tamsulosin OCAS (0.4 mg) alone showed statistically significant improvements in total international prostate symptom score *vs* placebo (P<0.05).

'...EC905 improves efficacy compared with placebo and with tamsulosin monotherapy, using only a single pill,' commented Professor Marcus Drake, Senior Lecturer in Urology at the University of Bristol, investigator and presenting author of the NEPTUNE Study. '... A treatment that can reduce the pill burden while maintaining efficacy and tolerability is likely to be welcomed by both patients and physicians alike.'

Drake M, Chapple C, Van Kerrebroeck P, Speakman M, Klaver M, Van Charldorp K, Traudtner K (2012) Efficacy of combination therapy with tamsulosin OCAS and solifenacin in NEPTUNE: Results from a randomized Phase III trial in men with LUTS. Poster AM12-2045. Annual Congress of the European Association of Urology, Paris