Highest expectations were scored for pain relief and improvement of the ability to walk of short and medium distances. Patients had the lowest expectations for improvement in kneeling, squatting, psychological well-being sexual activity and the ability to have paid work.
Female sex, higher age, higher depression score and duration of complaints > 50 months showed to be significant predictors of lower expectations for the treatment outcome after TKA. Baseline pain and function scores were not related to the level of pre-operative expectations.
Conclusion: In conclusion young, male patients with a short duration of complaints might be at risk of having too high expectations of the treatment result. On the contrary patients with depressive symptoms are more likely to have low expectations, with a potential negative influence on their treatment result. The present study aids in identifying patients at risk for having either too high or too low expectations. This knowledge can be utilized in individualized expectation management interventions.
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THU0464 PHASE 2 CLINICAL TRIAL OF THE GI SAFETY OF A HYDROGEN SULFIDE-RELEASING ANTI-INFLAMMATORY DRUG (ATB-346)

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Background: Hydrogen sulfide (H_2S) is a naturally occurring gaseous mediator produced by intestinal bacteria and various eukaryotic cells. H_2S exerts anti-inflammatory, pro-resolution and cytoprotective effects *in vivo*. ATB-346 is an H_2S-releasing derivative of naproxen, which in animals was shown to produce negligible gastrointestinal (GI) damage and bleeding. In human studies, ATB-346 was found to be much more potent and long-lasting than naproxen. A phase 2 open-label efficacy study demonstrated that ATB-346 (250 mg daily) significantly reduced pain in patients with osteoarthritis of the knee, and markedly suppressed cyclooxygenase (COX) activity. The aim of the present study was to determine if ATB-346 would induce less gastroduodenal ulceration than standard dose naproxen.
Objectives: To determine if healthy subjects taking ATB-346 for 14 days would develop significantly less gastroduodenal ulcers ($\geq$3 mm diameter with depth) than subjects taking an equi-effective dose of naproxen.
Methods: This was a double-blind, active control, endoscopic study. 244 healthy volunteers completed the study. Upper GI endoscopy was performed prior to and on day 14 after commencing treatment with naproxen (550 mg twice daily) or ATB-346 (250 mg) once daily in the morning and placebo once daily in the evening. Whole blood thromboxane synthesis was measured on days 0, 7 and 14. Plasma H_2S levels were also measured.
Results: 53 subjects taking naproxen (42.2%) developed at least one ulcer, while only 3 subjects (2.5%) treated with ATB-346 developed at least one ulcer ($p<0.0001$). The two drugs suppressed COX activity to the same extent (>95%). Affected subjects in the naproxen group developed more ulcers (an average of 4 per subject) than in the ATB-346 group (an average of 1.3), and there was a much greater incidence of larger ulcers ($\geq$5 mm diameter) in the naproxen group than in the ATB-346 group (125 vs 0, respectively). The incidence of gastro-esophageal reflux, abdominal pain and nausea was lower with ATB-346 than with naproxen. Plasma H_2S levels were significantly elevated (by 50%; $p<0.001$) in the ATB-346 group.
Conclusion: Consistent with the pre-clinical studies, this phase 2 clinical trial demonstrated a dramatic reduction of upper GI ulcer formation in subjects treated with equi-effective doses of ATB-346 versus naproxen. The COX inhibition observed in this trial was consistent with a previous phase 2A trial that demonstrated significant pain relief with ATB-346 in patients with osteoarthritis of the knee. ATB-346 appears to be an effective and much safer alternative to existing NSAIDs.
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THU0464B IS THERE AN ASSOCIATION BETWEEN METABOLIC SYNDROME AND SEVERITY OF HAND OSTEOARTHRITIS? RESULTS FROM A NATIONWIDE STUDY

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Background: Hand osteoarthritis (HOA) is a highly prevalent rheumatic disease that predominates in females and causes pain, joint deformities and loss of functional capacity. Overweight and metabolic syndrome have been previously suggested to associate with the severity of HOA, but clarity on these associations is yet to be achieved.
Objectives: To test the possible association between body mass index (BMI) and other individual components of metabolic syndrome with severity of HOA in females from a nationwide epidemiological study.
Methods: EpiReumaPt was a three-stage national health survey where, in the first phase, 10,661 adult participants were randomly selected and interviewed using a structured face-to-face questionnaire that included screening for rheumatic diseases, such as HOA. In the second phase, positive screenings for $\geq$1 rheumatic complaint plus 20% of the negative screenings were invited for an assessment by rheumatologists. Finally, 3 rheumatologists revised all the information and defined the final diagnosis by consensus. Female patients with a final clinical diagnosis of primary HOA were included in this analysis. Hand functional status as assed by the Cochin questionnaire was the outcome of interest. The explanatory variables of interest were: BMI evaluated as a categorical variable (Normal: 18-24.99; overweight: 25-29.99; obesity: $\geq$ 30), diabetes mellitus, hypertension and hypercholesterolemia (all self-reported and as binary variables: yes/no). The possible associations between BMI and the individual components of the metabolic syndrome with the Cochin score were tested in a multivariable linear regression model. Only significant variables ($p<0,05$) were kept in the final model. Potential confounders of the associations of interest and the outcome were defined a priori on clinical grounds and included age and symptoms of depression (HADS score).
Results: Out of the 3,877 participants evaluated by Rheumatologists, 473 women had primary HOA (national prevalence: 6.6%). In this population, 40% were overweight and 29% were obese. Ninety-three (20%) participants had diabetes, 261 (56%) had hypertension and 261 (56%) had hypercholesterolemia. In the multiple regression model, BMI and diabetes were found to significantly associate with HOA severity, whereas hypertension and hypercholesterolemia did not, thus not being selected in the final model (table).

Abstract THU0464 –Table 1. Association between individual components of the metabolic syndrome and HOA severity (Cochin score). Multivariable linear regression model

	HOA severity (Cochin score) β coefficient (95% CI) N= 408
BMI (categorical)	0.31 (0.05; 0.57)
Diabetes (yes vs no)	3.63 (0.13; 7.13)
Age (years)	0.13 (-0.01; 0.27)
HADS score (continuous)	0.90 (0.59; 1.22)

Conclusion: In this study, higher BMI and the presence of diabetes mellitus associated with a worse functional capacity in women with primary HOA. These data add to the body of evidence suggesting a possible role of metabolic factors in the severity of HOA.

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