

and the remnant tendon sheath was significantly different from the adhesion between the tendon and the subcutaneous tissue. Histological observation: with time, fibrous connective tissue increased around the tendon, which was more pronounced between the tendon and the subcutaneous tissue than between the tendon and the remnant tendon sheath.

**Conclusion** Postoperative adhesions between the tendon and different tissues differ. More tissue adhesion formed between the tendon and the subcutaneous tissue than between the tendon and the remnant sheath.

## 20 GUT MICROBIOTA IN HUMAN ADULTS WITH IRRITABLE BOWEL SYNDROME DIFFERS FROM HEALTHY CONTROLS

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10.1136/jim-2017-MEBabstracts.20

**Background** Recent evidence suggests that there is a link between irritable bowel syndrome (IBS) and microbiota in the gut. The onset and maintenance of IBS may be caused by gut microbiota, but the causes of the pathophysiology of this disorder are unknown.

**Method** 25 patients who fulfilled Rome III criteria for IBS and 29 age- and gender-matched healthy controls were chosen in this study. The total bacterial DNA isolated from the two populations was investigated through amplicon pyrosequencing of the V3–V4 regions of the 16S ribosomal RNA gene.

**Results** The composition of bacteria in the groups differed between healthy controls and IBS subgroups from phylum to the genus level. Synergistetes phylum ( $p=0.016$ ), Bacilli class ( $p=0.006$ ), Lactobacillales order ( $p=0.006$ ), Enterobacteriales order ( $p=0.02$ ), the families Streptococcaceae ( $p=0.009$ ), Enterobacteriaceae ( $p=0.02$ ), and Enterococcaceae ( $p=0.001$ ), and the genera Streptococcus ( $p=0.002$ ), Enterobacter ( $p=0$ ), Klebsiella ( $p=0.006$ ), and Enterococcus ( $p=0.001$ ) exhibited higher levels in IBS patients compared with healthy controls. By contrast, Clostridia class ( $p=0.024$ ), Betaproteobacteria class ( $p=0.019$ ), Clostridiales order ( $p=0.024$ ), the families Bacteroidaceae ( $p=0.049$ ), Desulfovibrionaceae ( $p<<0.01$ ), and Lachnospiraceae ( $p=0.012$ ), and the genera Bacteroides ( $p=0.049$ ) and Roseburia ( $p=0.012$ ) had lower levels in IBS patients. The genera Turicibacter and Collinsella were most abundant in 51–60 year old patients, followed by 31–40 year old IBS patients. We also detected Acinetobacter and Campylobacter belonging to Proteobacteria phylum in female IBS patients, but not in male patients.

**Conclusion** There were differences in faecal microbiota between IBS patients and healthy controls. The faecal microbiota of patients with IBS is associated with significant increases in detrimental and decreases in beneficial bacterial groups.

**Acknowledgment** Supported by grants from National Program on Key Basic Research Project (973 Program, 2013CB531405), and the National Natural Science Foundation of China (NSFC, No. 81641029 and 81370113).

## 21 EFFECT OF JINJIANG GRANULES ON INTESTINAL MUCOSAL IMMUNITY IN MICE MODEL

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10.1136/jim-2017-MEBabstracts.21

**Objectives** To study the effect of Jinjiang granules on immune function in mice with hypoimmunity and to provide a basis for the application of Jinjiang granules in the early stage of clinical colds.

**Methods** KM mice (half male, half female) were randomly divided into 6 groups. The mice were given the drug once a day (normal control group and model group were given with physiological saline). The mice were weighed once every 3 days. Weight was adjusted to the drug volume. All the groups except the normal group were injected with cyclophosphamide to establish the mice model of hypoimmunity for 3 days. On the seventh day, two hours later the thymus, spleen and intestinal mucosa were obtained after intragastric administration to detect SIgA, Gln, TNF- $\alpha$  and IL-1 $\beta$ .

**Results** The mice models of hypoimmunity in mice succeeded. In the medication group the IL-1 $\beta$  and TNF- $\alpha$  levels improved and the SIgA and Gln levels were reduced to different degrees. In the treatment group there was a certain therapeutic effect on spleen and thymus tissue pathological changes. The best curative effect is the lentinan, followed by large dose of jinjiang group and medium dose of jinjiang group.

**Conclusions** Jinjiang granules can improve the immune function of the mice models of hypoimmunity. It also improves intestinal immune function. It prevents colds when given as the initial medicine.

**Acknowledgements** The Central Plains scholars (162101510003), the team of outstanding scientific and technological innovation in Henan province (TCJ2014-391), Henan University of Traditional Chinese Medicine and deep processing of geoherts Collaborative Innovation Centre (2012) 188–2.

## 22 IN VIVO EVALUATION OF ETHANOL EXTRACT OF FORSYTHIA SUSPENSIA (THUNB.) VAHL (FRUIT) IN ANTI-INFLAMMATORY AND ANALGESIC ACTIVITIES

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10.1136/jim-2017-MEBabstracts.22

**Objectives** The dried fruit of *Forsythia suspensa* (Thunb.) Vahl (FSTV) is a typical heat-clearing and detoxicating herb according to traditional Chinese medicine theory. This study was undertaken to evaluate the anti-inflammatory and analgesic activities of 85% ethanol extract of FSTV (FSTV-ET) in vivo.

**Methods** Conventional reflux extraction method was used to prepare FSTV-ET with a yield of 42.7%. The analgesic activity of FSTV-ET was evaluated using the hot plate test and acetic acid-induced abdominal writhing test, and the anti-inflammatory activity was evaluated by the xylene-induced ear oedema