

**PWE-061 HOMOZYGOSITY IN THE APOE4 POLYMORPHISM IS ASSOCIATED WITH DYSPHAGIC SYMPTOMS IN AN OTHERWISE HEALTHY ELDERLY POPULATION**

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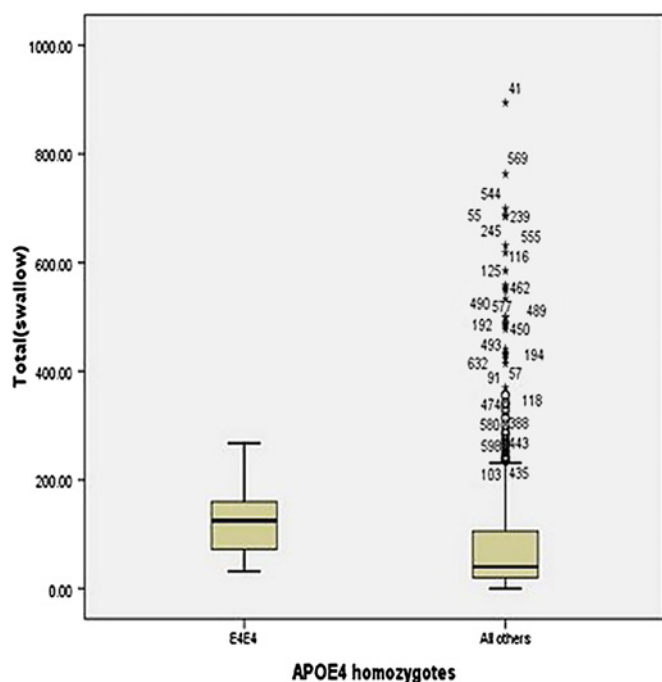
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**Introduction** Apolipoprotein E (ApoE) is thought to be the most common genetic risk factor for Alzheimer's disease and has a number of polymorphisms. While the E2 allele is proposed to play a protective role, the E4 allele is said to increase the risk of cognitive decline. We therefore hypothesised that the presence of ApoE4 would be predictive of dysphagia symptoms.

**Methods** 800 members of a genetically well characterised community dwelling elderly cohort received the Sydney oropharyngeal dysphagia questionnaire via mail.<sup>1</sup> Cognitive function was also measured using the Telephone Interview of Cognitive Status and mood with the Geriatric Depression Score (GDS). ApoE4/2 allele status was then correlated with dysphagia symptoms.

**Results** Completed questionnaire response rate was 79% (23.5% men, 76.5% women; mean age 81±5 years; range 69–98 years). Possession of one or more of the ApoE4 and 2 alleles was found in 23.5% and 16% respectively. Swallowing score was significantly related to GDS (CC 0.133, p<0.001\*\*) and Age (CC 0.107, p<0.007\*\*). While dysphagia was not significantly associated with possession of single E4 or E2 alleles, ApoE4 homozygosity was associated with significantly higher swallowing scores compared to all other allele combinations (p=0.033).

**Conclusion** We have shown a novel relationship between self reported dysphagic symptoms and ApoE genotype in community dwelling older adults. The presence of ApoE4 homozygosity appears to associate with dysphagia symptoms but requires replication in independent larger cohorts.



Abstract PWE-061 Figure 1

**Competing interests** None declared.

**REFERENCE**

- Wallace KL, Middleton S, Cook IJ. Development and validation of a self-report symptom inventory to assess the severity of oral-pharyngeal dysphagia. *Gastroenterology* 2000;**118**:678–87.

**PWE-062 CAN MAGNETIC NEURAL STIMULATION IMPROVE ANORECTAL SENSITIVITY IN IBS?**

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**Introduction** Visceral pain is a major clinical problem being a primary feature of irritable bowel syndrome (IBS). Treatments for this condition are limited, but there is increasing evidence that neural stimulation may be able to alter pain thresholds in the somatic literature. By contrast, little is known about the role of neurostimulation applied to visceral pain and its ability to alter sensitivity. The aim of this study was to ascertain whether repetitive magnetic stimulation (MS) applied to the lumbosacrum and motor cortex can alter anorectal sensitivity in IBS patients.

**Methods** Participants: 10 IBS patients (9 females, age range 22 and 54 years). All IBS patients fulfilled Rome III criteria for IBS. Anorectal electrical sensory measurements were performed via a stimulating catheter positioned in the rectum, 10 cm from the anal verge and an anal plug. Sensory and pain thresholds in the rectum and anal sphincter were determined using trains of electrical stimuli, repeated three times. Anorectal sensory and pain thresholds were performed at baseline before intervention and then immediately, 30 and 60 min after each intervention. Interventions comprised 3 neurostimulation paradigms delivered in random order over separate days: repetitive 1 Hz lumbosacral magnetic stimulation (rLSMS),

Abstract PWE-062 Table 1

Rectal	Baseline	0 min	30 min	60 min
rLSMS 1 Hz				
ST	22.6±2.8	27.1±3.4*	28.8±3.5*	29.6±3.6*
P	45.9±6.4	53.8±6.5*	53.8±7**	56.9±8.2*
rTMS 10 Hz				
ST	24.4±2.7	27.9±3*	29.1±3.8*	29.3±3.6*
P	44.1±5.5	53±8.7**	54.6±8.9*	57.1±9**
Sham				
ST	21.3±3	23.3±3	24.1±3.3	23.2±2.8
P	38.7±3.4	38.6±3.2	39.8±3.6	40.4±3.5

\*p<0.05, \*\*p<0.01.

Abstract PWE-062 Table 2

Anal	Baseline	0 min	30 min	60 min
rLSMS 1 Hz				
ST	6.3±0.7	7.3±1.2	7.1±1.1	6.7±1
P	24.3±5.2	23.6±5.1	25.2±4.9	25.6±4.7
rTMS 10 Hz				
ST	5.3±0.6	5.5±0.7	5.4±0.8	6±0.7
P	23.3±5.3	25.9±6*	27±5.4**	29.4±6**
Sham				
ST	5.8±0.7	5.8±0.6	6.4±0.7	6.1±0.6
P	22±3.3	22.3±3.1	24±3.7	23.7±3.8

\*p<0.05, \*\*p<0.01.

repetitive 10 Hz cortical transcranial magnetic stimulation (rTMS) and sham in the form of tilted coil.

**Results** Data (mean±SEM) were analysed by two way ANOVA (see Abstract PWE-062 tables 1 and 2) showed a significant increase in sensory (ST) and pain (PT) thresholds immediately, at 30 and 60 min in the rectum following both 1 Hz rLSMS (ST (p=0.015, 0.048 and 0.022, respectively), PT (p=0.014, 0.004 and 0.012, respectively)) and 10 Hz rTMS (ST (p=0.046, 0.041 and 0.017, respectively), PT (p=0.005, 0.02 and 0.007, respectively)). In addition, only 10 Hz rTMS increased anal sphincter pain thresholds immediately, at 30 and 60 min after the intervention (PT (p=0.032, 0.004 and 0.001, respectively)). Sham stimulation had no effect on any of the anorectal sensory parameters.

**Conclusion** The application of repetitive magnetic stimulation to lumbosacral area and motor cortex is able to modulate human visceral sensitivity in IBS patients and holds promise as a future therapeutic intervention.

**Competing interests** None declared.

**PWE-063 EFFECTIVENESS OF GENERAL HYPNOTHERAPY AND GUT-DIRECTED HYPNOTHERAPY IN REFRACTORY IRRITABLE BOWEL SYNDROME**

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**Introduction** Irritable bowel syndrome (IBS) is a very common condition, which constitutes up to 50% of Gastroenterology outpatient referrals. Many pharmacological and non-pharmacological treatments are available with variable results. Hypnotherapy is generally reserved for refractory IBS patients. Although there is ample evidence to show the effectiveness of Gut-directed Hypnotherapy (GDH), there are only few studies to support other forms of hypnotherapy especially general hypnotherapy. Aim of this study was to assess the effectiveness of different types of hypnotherapy on refractory IBS patients treated in our institution, a tertiary referral centre.

**Methods** In our institution, an experienced hypnotherapist assesses refractory IBS patients. Based on their symptoms, patients receive either general hypnotherapy (GH), GDH or both. All patients score their IBS symptoms on IBS Symptom Score sheet [0–10 Likert scale, minimum score 0, maximum 60] first at the baseline (Pre-hypnotherapy score) and then at the end of the hypnotherapy (Immediate Post-hypnotherapy score). Patients also complete Hospital Anxiety and Depression (HAD) score sheet before and after hypnotherapy. We analysed the data of all patients treated with hypnotherapy between February 2009 and December 2011. Follow-up questionnaires were sent to all patients in the post at variable periods after the completion of hypnotherapy to score their current symptoms (Long-term Post-hypnotherapy score). Parametric methods were used for statistical analysis.

**Results** During the study period, 34 patients (n=34, females 29, mean age 41.5) received hypnotherapy (GH=15, GDH=8, both =11). Average number of hypnotherapy sessions was 4.7 (range

3–6, 1 h/week). Seventeen (50%) patients returned their follow-up questionnaires. Mean duration between the last session of hypnotherapy and completion of the follow-up questionnaire was 16 months (range 5–32). Abstract PWE-063 table 1 shows the main results.

**Conclusion** Our study suggests that treatment of refractory IBS patients with general hypnotherapy, either alone or in combination with gut-directed hypnotherapy is effective both in short and long term. These results need to be confirmed in prospective randomised controlled studies directly comparing general hypnotherapy against gut-directed hypnotherapy.

**Competing interests** None declared.

**Radiology**

**PWE-064 ROUTINE POST-OPERATIVE CONTRAST SWALLOWS FOLLOWING ANTI-REFLUX SURGERY AND HIATUS HERNIA REPAIR: SELECTIVE USE IS PREFERRED**

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**Introduction** The routine use of post-operative contrast studies following gastric fundoplication surgery is contentious. This study aimed to determine whether routine contrast studies were more likely to identify significant post-operative complications when compared to their selective use.

**Methods** This was a retrospective study of 241 consecutive patients undergoing primary gastric fundoplication. The primary outcome measure was the identification of significant complications (intra-thoracic migration, perforation, volvulus or obstruction) by water-soluble contrast swallow that warranted further intervention or immediate reoperation.

**Results** Routine contrast studies (Group A) performed in 125 patients identified 6 abnormalities. Of the remaining 116 patients (Group B), 11 underwent selective contrast studies of which one was abnormal. Two patients from Group A underwent immediate reoperation as a result of the contrast study compared to none from group B (p=1.000). One patient from Group A presented 3 days following discharge with an incarcerated hiatus hernia requiring reoperation despite a normal post-operative contrast study. The incidence of radiologically detected abnormalities was greater in patients whose primary indication for surgery was large hiatus hernia compared to those whose surgery was primarily for gastro-oesophageal reflux; however this was not statistically significant (11% vs 2% respectively; p=0.051).

**Conclusion** The routine use of contrast studies following gastric fundoplication is unnecessary as it does not identify a greater number of significant acute post-operative complications when compared to the selective use of such investigations.

**Competing interests** None declared.

Abstract PWE-063 Table 1 Changes in HAD scores & IBS Symptom Scores [mean±SD] before and after hypnotherapy

	Pre-hypnotherapy score	Immediate post-hypnotherapy score	p Value*	Long-term post-hypnotherapy score	p Value*
All patients (n=34)	32.14±11.72	14.97±10.95	p	19.7±12.25 (n=17)	p=0.0009
HAD score (n=22)	23.27±9.39	16.42±10.15	p=0.025	—	—
General hypnotherapy (GH) (n=15)	26.13±18.37	11±9.28	p	17.37±8.37 (n=8)	p=0.026
Gut-directed (GDH) ± GH (n=19)	36.89±11.98	18.1±11.37	p	21.77±15.13 (n=9)	p=0.0081