Proceedings of the Nutrition Society (2010), **69 (OCE1)**, E109 doi:10.1017/S0029665109992977

Over- and undernutrition: challenges and approaches. 29 June–2 July 2009

Survey of incidence of diverticular disease, dietary advice and probiotic advice in three Surrey practices

J. A. A. Nichols[1] and L. Thomas[2]

[1]*60 Manor Way, Onslow Village, Guildford, Surrey GU2 7RR, UK and* [2]*Yakult UK Ltd, Artemis, Odyssey Business Park, West End Road, South Ruislip, Middlesex HA4 6QE, UK*

Diverticulosis is a deficiency disease caused by a shortage of dietary fibre[1]; 20% of subjects will develop diverticulitis and need antibiotics[2]. Dietary advice includes increasing intake of vegetable fibre, but giving probiotics during and after antibiotics for a diverticulitis attack may also be beneficial[3,4]. Estimates of the prevalence of diverticulosis based on subjects aged ≥ 40 years vary from 6–8% in African countries to 25–50% in European countries[5,6]. In North America the incidence in subjects aged >50 years has been estimated at 40% and 10–25% developed diverticulitis[2]. According to these studies there is no significant gender bias. However, in the present survey, data derived from UK primary-care electronic records show a lower prevalence of diverticulosis of 11% and the attack rate for diverticulitis per 5 years is two to three times higher in females than males ($P<0.001$). Although there are more women than men with known diverticulosis, female longevity is a confounding factor. The 7.4% prevalence of diverticulosis in subjects aged >55 years from the general practitioner (GP) records may be an underestimate compared with total population screening for diverticulosis[5,6].

Results of a questionnaire sent out to patients who had been treated for diverticulitis in the previous 5 years indicated that ≥31% of patients with diverticulitis retained GP advice on dietary fibre and 15.6% recalled being advised to take a probiotic. At the time of completion of the questionnaire 32.5% of subjects were taking a probiotic regularly and further data analysis showed a trend for these subjects to have fewer bowel symptoms and slightly fewer episodes of diverticulitis, which did not reach significance. Several responses to an open-ended comments section seemed to back up this trend: 'Since starting to take a liquid probiotic daily (friend recommendation) frequency & discomfort of attacks has reduced'.

	Total (all ages)		Age range (years)											
			<35		35–44		45–54		55–64		65–74		>75	
Base (three GP practices)	26 536		11 197		4217		4093		3285		1891		1853	
Diverticulosis	565		0		7		37		100		152		269	
Diverticulosis by gender	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	236	329	0	0	6	1	15	22	45	55	63	89	107	162
% all diverticulosis	42	58	–	–	86	14	41	59	45	55	41	59	40	60
Diverticulitis in last 5 years % who developed diverticulitis in last 5 years	115		0		0		12		22		38		43	
	20		0		0		32.4		22		25		16	
Diverticulitis in last 5 years by gender and age	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	30	85	0	0	0	0	2	10	5	17	13	25	10	33
% all diverticulitis in diverticulitis age-group	26	74	–	–	–	–	17	83	23	77	34	66	23	77

M, male; F, female.

Patients who stay on a long-term daily probiotic regimen appear to have fewer attacks of diverticulitis but the power of this retrospective survey was inadequate to test the hypothesis that probiotics are genuinely beneficial. A larger prospective trial is needed and it is suggested that subjects should be recruited who have had two or more episodes of diverticulitis. An open label pilot study of a daily dose of a probiotic for 2 years could be the next stage but ultimately a randomised control trial of probiotic *v*. a placebo will be essential.

1. Santhini J & Savvas P (2008) *Int J Colorectal Dis* **23**, 619–627.
2. Parks TG (1975) *Clin Gastroenterol* **4**, 53–69.
3. Giaccari S, Tronci S, Falconieri M *et al.* (1993) *Riv Eur Sci Med Farmacol* **15**, 29–34.
4. Fric P & Zavarol M (2003) *Eur J Gastroenterol Hepatol* **15**, 313–315.
5. Blachut K, Paradowski L & Garcarek J (2004) *Rom J Gastroenterol* **13**, 281–285.
6. Hughes LE (1969) *Gut* **10**, 336–351.