

Selective abortion of girls rises steadily in India

Selective abortion of girls is a growing problem in India. The ratio of girls to boys among second-born babies in families where the first-born child was a girl has fallen steadily over the past two decades, say researchers. In 2005, there were only 835 second-born girls in these families for every 1 000 second-born boys. Selective abortion is the only reasonable explanation. Sex ratios in children up to 6 years reflect the imbalance in births. Census data show that the ratio of girls to boys is falling in three quarters of Indian districts.

Selective abortion is illegal, so the true extent of the practice cannot be measured. Researchers estimate that between three and six million female fetuses have been aborted in India since 2000. Falling sex ratios are most marked in rich families with well-educated parents, who presumably have access to expensive ultrasound and abortion services. This analysis of three national surveys and two national censuses found no evidence of selective abortion in poor families, families with no children, or families with boys.

India's preference for boys has endured despite economic development, but the real blame lies with doctors, says an editorial. Selective abortion is big business, worth an estimated \$100m (£61.5; €71m) a year to doctors, technicians, and other providers. They must be held to account. The Pre-Natal Diagnostic Techniques Act, in force since 1996, has not worked. Few doctors are ever prosecuted. Fewer still are convicted. Why? Because illegal activity is hard to prove in a country with no systematic records of births. Rebalancing the sexes in India must start with this.

Jha P, et al. *Lancet* 2011;377:1921-1928.

Intensive lifestyle counselling fails to prevent gestational diabetes

Advising women at risk of gestational diabetes to eat better and exercise more helped control their baby's birth weight but failed to have any effect on the incidence of gestational diabetes in a cluster randomised trial from Finland. Women in the seven municipalities assigned to the intervention were counselled repeatedly during pregnancy and given targets for exercise levels, healthy eating, and weight gain. Only a quarter of them managed to meet their targets (55/229; 24%), and this may have contributed to the negative result.

Babies born to women in intervention municipalities were 104 g lighter (95% CI 7.6 - 201; $p=0.035$) at birth than babies born to control women given usual care, after

statistical adjustments to control baseline differences between the two groups.

All 399 participants had a normal glucose tolerance test 10 - 12 weeks into pregnancy, but were considered high risk because of their body mass index (at least 25), history (macrosomia or gestational diabetes in a previous pregnancy), or family history. By the start of the third trimester, 15.8% (34/216) of women given counselling and 12.4% (22/179) of controls had gestational diabetes.

Luoto R, et al. *PLoS Med* 2011;8(5):e1001036. doi:10.1371/journal.pmed.1001036

Overweight is linked to disability, not death, in older adults

Being overweight, or even obese, doesn't necessarily reduce survival for older adults, say researchers. It does, however, mean a higher risk of disability. In a cohort of adults aged at least 65, body mass index (BMI) wasn't associated with mortality until it rose to at least 35. But the risk of a new or progressive disability during two years of follow-up rose in line with BMI for both men and women. The significant trend was most noticeable for disabilities that limited activities of daily living such as bathing, dressing, and walking. Higher than normal BMI was also associated with struggling to answer the phone, shop, cook, and manage money.

The researchers analysed longitudinal survey data from 20 975 adults who were eligible for Medicare, national health insurance for older people in the USA. The link between BMI and disability was independent of age, smoking, education, and chronic illness not related to obesity; it emerged from analyses that excluded adults with disabilities at baseline.

Overweight and obesity are clearly associated with a loss of functional independence in older adults, say the researchers. Now we need to know if weight control can reverse these problems without causing other problems. Falling bone mineral density and malnutrition can both follow weight loss in this age group. Perhaps we should focus instead on improving balance, flexibility, and muscle strength.

Wee CC, et al. *Ann Intern Med* 2011;154:645-655.

Adrenaline blunts adverse reactions to unsafe antivenom

People bitten by poisonous snakes need antivenom to neutralise the toxins. These agents can work, but they can also cause allergic reactions and anaphylaxis, particularly if local manufacturers use

horse proteins. Risk of a severe reaction reaches 40% in some areas of South Asia, so researchers designed a trial to test whether pretreatment with adrenaline, promethazine, and hydrocortisone alone or in combination might protect people needing antivenom.

A low dose of subcutaneous adrenaline, given alone immediately before the antivenom, was the only prophylactic agent that reduced the risk of a severe allergic reaction or anaphylaxis when compared with no adrenaline (23.9% (120/502) v. 29.3% (148/505); adjusted odds ratio 0.57, 95% CI 0.43 - 0.75). Nothing else worked, and secondary analyses suggested hydrocortisone might be harmful.

The 1 007 participants were bitten and treated in Sri Lanka. Three quarters (752/1 007) had some kind of reaction to their antivenom, mostly within an hour of the infusion. A third (322/1 007) had a severe reaction that included hypotension, cyanosis, and confusion. These risks are unacceptable, say the researchers, who blame poor manufacturing standards and quality control. Improvements are long overdue in Sri Lanka and elsewhere in South Asia. In the meantime, prophylactic adrenaline may help. Use of hydrocortisone, which is widespread, should be discouraged.

Asita de Silva H, et al. *PLoS Med* 2011;8:e1000435

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