Table 6: Evidence table – Kumar et al. (2011)

Study type	Case-control
Country	India
Number of patients	N=588 women - 104 with idiopathic recurrent abortion - 104 with unexplained still birth - 230 with infertility - 150 pregnant women with idiopathic intrauterine growth restriction (IUGR) N=305 control
Quality	1. Did the study have a clearly focused aim? Yes 2. Was the cohort recruited in an acceptable way? Yes 3. Was the exposure accurately measured to minimise bias? Yes 4. Was the outcome accurately measured to minimise bias? Yes 5. Have the authors identified all important confounding factors? Have they taken account of confounding factors in the design/analysis? Yes

	6. Was the follow-up of subjects complete enough? Was the follow-up of subjects long enough? Yes 7. What are the results? CD is associated with high rates of unexplained fertility 8. How precise are the results? Imprecisev- wide CI 9. Do you believe the results? Yes, however the estimation of prevalence if CD in this population is much higher than expected 10. Can the results be applied to the local population? Yes 11. Do the results fit with other available evidence? Yes, however see 9 12. What are the implications of this study for practice? Women with unexplained poor pregnancy outcomes should be considered for testing for CD
Study population	Inclusion (for all): Consecutive women with a history of idiopathic recurrent spontaneous abortion, history of unexplained still birth, unexplained infertility and idiopathic intrauterine growth restriction attending a tertiary teaching hospital in New Delhi between August 2006 and July 2009 *Inclusion for infertility*: normal semen analysis from the husband, normal ovulation assessed by premenstrual endometrial biopsy, normal postcoital test result (for cervical factor of infertility), normal serum LH, FSH, and PRL, normal tubal patency, normal diagnostic laparoscopy *Inclusion for IUGR:* discrepancy of > 4 weeks between fundal height of uterus and period of gestation in weeks in the 3rd trimester and observed on 2 successive antenatal visits; subsequently, if measured was < 4 cm from expected height of the uterus, inappropriate fetal growth was suspected (exclusion: hypertension in pregnancy, congenital malformation in the fetus, heart disease, renal disease, smoking, known metabolic disorder) *Inclusion for recurrent spontaneous abortion:* 2 or more clinically recognised pregnancy losses before 20 weeks from the last menstrual period (exclusion: single spontaneous abortion (anatomic, hormonal, chromosomal, autoimmune, or infection) *Inclusion for stillbirth:* birth of the newborn after 28 completed weeks of gestation with no signs of life after delivery (exclusion: identifiable causes of stillbirth like preeclapsia, hypertension, diabetes mellitus, uteroplacental insufficiency Of 125 women with recurrent spontaneous abortion, 118 with stillbirth, 170 with IUGR, and 250 with infertility: - 15 refused consent (7 with spontaneous abortion, 5 with stillbirth, 3 with unexplained infertility) - 14 more with spontaneous abortion were excluded because they had other conditions (6 with hypothyroidism, 7 with diabetes, 1 with antiphospholipid antibody syndrome) - 9 more with stillbirth were excluded because they had diabetes, - 20 more with IUGR were excluded because they had other conditions (10 with preeclampsia, 6 with heart disease, 4 with chronic renal disease) - 17 more with infertility (4 with male factor infertility, 6 with polycystic ovary disease, 6 with bilateral tubal block and 1 with hypothyroidism)

	Recurrent abortion (n=104)	Stillbirth (n=104)	Infertility (n=230)	IGUR (n=150)	Control (n=305)
Mean age in	26.47±3.80	26.87 ± 3.54	29.71 ± 4.64	28.31 ± 4.00	27.75 ± 4.48

	years (± SD)					
	Mean BMI (kg/m^2) (± SD)	22.36 ± 3.24	23.86 ± 3.55	23.44 ± 4.00	22.68 ± 4.03	21.08 ± 3.54
Control	Women with normal obstetric history who attended the family planning clinic of the hospital					
Length of follow-up	n/a (until delivery for those with IGUR)					
Details of coeliac testing	Of serum taken at the time of recruitment and stored at –20°C, all samples were analysed for IgA anti-tTG (≥ 5 U/mL was positive), IgA AGA (≥ 20 RU/mL was positive), and IgG AGA (≥ 30 RU/mL was positive) (ELISA, Radim SpA, Pomezia, Italy) and IgA EMA by indirect immunofluorescent microscopy with use of fixed cryostat sections of monkey oesoagphus (The Binding Site, Birmingham, UK)					

Results

	Recurrent abortion (n=104)		Stillbirth (n=104)		Infertility (n=230)		IGUR (n=150)		Control (n=305)
	% seropositive (n)	p value (vs control)	% seropositive (n)	p value (vs control)	% seropositive (n)	p value (vs control)	% seropositive (n)	p value (vs control)	% seropositive
IgA tTG	6.7 (7)	0.007	5.7 (6)	0.02	5.65 (13)	0.004	9.33 (14)	0.0001	1.31 (4)
IgA AGA	5.7 (6)	0.02	13.4 (14)	0.0002	13.04 (30)	0.0001	30.7 (46)	0.0001	1.31 (4)
IgG AGA	20.19 (21)	0.0001	9.6 (10)	0.24	12.6 (29)	0.01	16 (24)	0.0008	6.23 (19)
IgA EMA	4.81 (5)	0.03	4.81 (5)	0.03	4.78 (11)	0.006	6.67 (10)	0.001	0.98 (3)

On the basis of tTG:

	Recurrent abortion (n=104)	Stillbirth (n=104)	Infertility (n=230)	IGUR (n=150)
OR vs control group (95% CI)	5.43 (1.34, 25.72)	4.61 (1.06, 22.56)	4.51 (1.36, 19.19)	7.75 (2.36, 32.76)

(the seroprevalence of the IgA tTG and IgA EMA was similar between all the groups, p > 0.05)

Pregnancy and labour complications:

	Recurrent abortion (n=104)			Stillbirth (n=104)			IGUR (n=150)		
	% seropositive (n)	% seronegative (n)	p value	% seropositive (n)	% seronegative (n)	p value	% seropositive (n)	% seronegative (n)	p value
History of pre-term delivery*	42.9 (3)	10.3 (10)	0.04	33.3 (2)	14.3 (14)	0.23	42.8 (6)	6.6 (9)	< 0.0001

	History of low birth weight infants	85.7 (6)	5.2 (5)	< 0.0001	83.3 (5)	19.4 (19)	0.002	35.7 (5)	14.7 (20)	0.06
	History of caesarean section**	85.7 (6)	13.4 (13)	< 0.0001	100 (6)	10.2 (10)	< 0.0001	57.1 (8)	9.6 (13)	< 0.001
	* < 37 weeks ** all caesarean sections were performed for obstetric indications									
Source of funding	Indian Council of Medical Research, New Delhi									
Conflicts of interest	Paper reports that all the author have nothing to disclose									
Comments	Authors also compared the prevalence in anaemia in women in these groups but this has not been reported here									

Definitions of abbreviations are given at the end of this document.