Letters to the Editor

[The Editor is not responsible for the views expressed by the correspondents]

Evaluating Contraceptive Use among Women in Gujarat, India

SIR, — India is a heavily populated country and efforts to control its population are being taken. However, it is surprising that even though most women in India know about contraception, and certain group (like young married couples) want to avoid pregnancy, the actual use of contraception is relatively low[1]. Patterns of contraceptive use are multifactorial but the sampling frame of this study is carefully chosen to overcome the variations in the population. This study aims to evaluate contraceptive usage among women of Gujarat, India to correlate its effects on number of the kids, number of unplanned pregnancies (Table 1). The correlation between contraceptive use and the level of education is explored.

Methodology : This study has been conducted in Ahmedabad, Gujarat. The questionnaire included questions of age, education status, marital status, whether sexually active or not, contraceptive used number of kids (Table 2) and number of unplanned pregnancies (Table 1). One-way ANOVA between contraceptives used and the number of unplanned pregnancies with Student Newman-Keuls Post HOC analysis. Similarly, one-way ANOVA between contraceptives used and the number of kids is shown in Tables with Student Newman-Keuls Post HOC analysis. Data analysis was done using IBM SPSS

Results : Total 320 responses were received. We see that there is a statistically significant association ($p < 0.05$) between using natural methods or no contraception and a higher number of unplanned pregnancies. In Table 1 we can see that using no contraception or natural methods of contraception is linked ($p < 0.05$) to a higher number of kids as shown in the Tables. A significant difference can be established between those using scientifically approved contraception when compared to those who used natural methods and no contraception.

Discussion : In India the major root cause of hesitancy has been established as the lack of awareness on correct use of contraception[2] and about the side effects that they can cause. The study further establishes the findings of many previous studies which show that level of education is positively linked to contraceptive use and negatively linked to fertility[3]. A silver lining must be that India is increasingly seeing a rise in contraceptive use by uneducated women[4], which helps progress the population control goals of the country.

In conclusion we can say that contraceptive use is an integral part of our population control goals. We should work towards shedding a light on its benefits and its drawbacks must be acknowledged and addressed.

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Table 1 — *Number of unplanned Pregnancies*			
Student-Newman-Keuls[a,b,c]		Subset	
Contraceptive Used	**N**	**1**	**2**
Pills	27	0.11	
IUD	36	0.31	
Condom	58	0.43	
Natural methods	45		0.80
None	154		0.92
Significance		0.188	0.528

Means for groups in homogeneous subsets are displayed. Based on observed means. The error term is Mean Square (Error) =0.754.
(a) Uses Harmonic Mean Sample Size = 45.138. (b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed. (c) Alpha = 0.05.

Table 2 — Number of Kids			
Student-Newman-Keuls[a,b,c]		Subset	
Contraceptive Used	**N**	**1**	**2**
Pills	27	1.11	
IUD	36	1.25	
Condom	58	1.29	
Natural methods	45		1.67
None	154		1.75
Significance		0.532	.637

Means for groups in homogeneous subsets are displayed. Based on observed means. The error term is Mean Square (Error) = 0.649.
(a) Uses Harmonic Mean Sample Size = 45.138. (b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed. (c) Alpha = 0.05.

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SIR, — We have read with interest the article byJanani Ramesh, *et al*[1]. We sincerely appreciate the effort of the authors to highlight the fact that thyroid autoimmunity in children and young adults with Type 1 diabetes and their siblings is common.

The authors have aimed to estimate TSH, fT4, Anti-TPO in T1DM children,T1DM sibling and Healthy control. 25% of the T1DM subjects had anti-TPO positivity where as in sibling 8.3% and in healthy control 6.7% had anti-TPO positivity. TSH level was also significantlyaltered among the groups but Ft4 level was not statistically different.

Recently we demonstrated[2] the level of different antibodies in T1DM subjects where we found 51% of T1DM subjects had anti TPO positivity and 25% of the subjects had anti-thyroglobulin (anti-TG) positivity.

There is a discordance in result between two studies but the reason for this is not well understood.

It would have been interesting if anti-TG level had been measured along with anti-TPO level, to better definethyroid autoimmunity.

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Other) in Children with Type 1 Diabetes. *Indian J Endocrinol Metab* 2020 May-Jun; **24(3):** 256-9. doi: 10.4103/ijem.IJEM_63_20. Epub 2020 Jun 30. PMID: 33083265; PMCID: PMC7539037.

COVID-19 Infection and Myocardial Infarction: Report of Two Cases from Eastern India

S<small>IR</small>, — The COVID-19 infection, caused by the SARS-CoV2 virus, has wreaked havoc all over the world over the past couple of years. Besides affecting the lung, this virus has also been found to have other fatal systemic manifestations. Although cardiac involvement like myocarditis has been reported, myocardial infarction is a very rare complication of this infection. Since the symptoms of Acute Myocardial Infarction (AMI), viz, chest pain, dyspnoea or arrhythmia can overlap with the clinical features of covid pneumonia and consequent hypoxia, it is often very difficult to differentiate the two merely on clinical grounds.

Case 1 :

A 76 year old male developed fever with acute dyspnoea. He was diagnosed to be COVID-19 positive and HRCT scan of thorax showed bilateral ground glass opacities (Fig 1). In view of the severe hypoxia (SpO_2 70% at 10 LPM oxygen), he was put on mechanical ventilation. However, on the second day of ventilation, there was sudden hypotension and refractory hypoxia. After ruling out pneumothorax by portable X-ray, an ECG was done, which showed (Fig 2) ST segment depression with T inversion in anterior leads. Troponin T level was strongly positive. Bedside echocardiography showed akinetic septum and parts of anterior wall. The patient was started on anti-platelet drugs, high dose statins and hemodynamic support was provided with noradrenaline infusion. Unfortunately, there was an episode of ventricular tachycardia on Day 4 and the patient suffered a fatal cardiac arrest.

Case 2 :

An 80 year old diabetic man presented with pneumonia and hemoptysis. He was diagnosed as COVID-19 pneumonia and transferred to critical care unit. In view of his hypoxia, he was put on HFNO at 60/60 setting and he remained stable haemodynamically. On day 7 of critical care stay, the patient developed increasing hypoxia with cough. An ECG was done, which showed (Fig 3) ST-T changes in leads V2-V6, suggestive of NSTEMI. Troponin T was positive and echocardiography showed akinesia of entire anterior wall. The patient had to be put on mechanical ventilation and passed away after two more days.

The relation of COVID-19 infection with thrombotic complications is a matter of active research[1]. A direct causative effect of Covid infection on AMI is still a matter of debate. But scientists have come up with some plausible hypotheses in this regard. The COVID-19 virus targets the ACE2 receptors on endothelial cells and this may give rise to endotheliitis and consequent inflammation induced thrombosis[2]. While such inflammation mediated vascular obstruction has already been documented in the covid lung, whether a similar pathophysiology operates in the coronary arteries is still a matter of speculation. Transcriptome analysis of
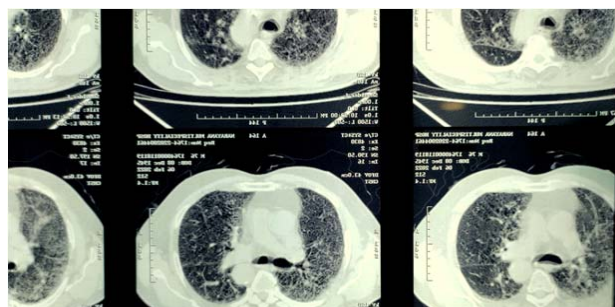

Fig 1 — HRCT scan of thorax of Case 1 showing bilateral ground glass opacities
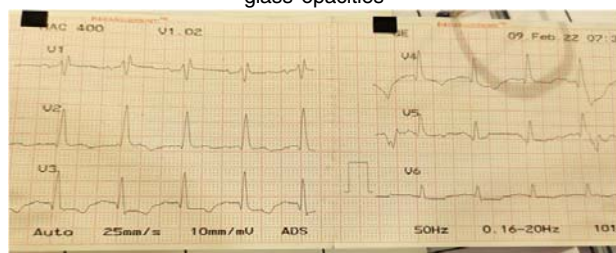

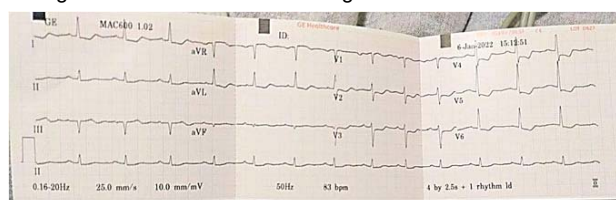Fig 2 — ECG of Case 1 showing NSTEMI in leads V2-V5

Fig 3 — ECG of Case 2 showing ST-T depression in leads V2-V6 and also I and avL