

Association of preterm delivery with urinary infection

❑ INTRODUCTION

- When labour begins before 37 weeks of pregnancy but after 28 weeks of pregnancy, as shown by consistent uterine contractions leading to progressive cervical changes, this is known as preterm labour.
- Uterine and cervical anomalies, early membrane rupture, placenta previa or abruption, trauma, excessive uterine growth (multiple pregnancies, hydramnios), and infection are all known causes.
- A urinary tract infection (UTI) is a potential cause of premature birth. Asymptomatic bacteriuria is the most common form of UTI in pregnant women, however symptomatic infections including acute cystitis and pyelonephritis are also recognised.
- Preterm delivery and a baby with a low birth weight are the most obvious negative outcomes of a UTI during pregnancy

❑ METHODOLOGY

- **Study design :** Case control study at PIMS for period of 6 months.
- **Sampling Technique:** Non-probability, consecutive sampling
- **Cases:** were those females who underwent preterm delivery, that was defined as active labor (>3 contractions in 10 minutes with Bishop score >4 and cervical dilation <4cm), before completion of 37 weeks of gestation as per last menstrual periods date. **Controls:** were those who delivered at term (>37 weeks of gestation as per last menstrual period)
- **Exclusion Criteria:** Multiple fetus, congenital malformation, fetal demise, antepartum hemorrhage, gestational or chronic hypertension, diabetes, uterine fibroids, anemia, abortion in previous pregnancy, h/o preterm delivery in previous pregnancy
- **Presence of UTI was labeled if there was presence of history persistent UTI during pregnancy i.e. presence of fever (temperature>99oF), and pathogen detected in urine sample on urine culture i.e. growth of more than 105 colony-forming units per milliliter of bacterium as per antenatal record and history.**

❑ CONCLUSION

- According to the findings of our study, we came to the conclusion that there is a significant correlation between UTIs and premature labour.

		UTI	Study Groups		p-value
			Cases	Controls	
Overall UTI		Yes	20	4	0.000
			30.8%	6.2%	
		No	45	61	
			69.2%	93.8%	
Age Groups	18-30	Yes	15	0	0.00
			42.9%	--	
		No	20	38	
			57.1%	100%	
	31-40	Yes	5	4	1.00
			16.7%	14.8%	
		No	25	23	
			83.3%	85.2%	
Parity	0	Yes	8	0	0.008
			36.4%	--	
		No	14	15	
			63.6%	100%	
	1	Yes	7	1	0.003
			53.8%	5.9%	
		No	6	16	
			46.2%	94.1%	
	2	Yes	3	2	0.634
			20%	10.5%	
		No	12	17	
			80%	89.5%	
	3	Yes	1	1	1.000
			12.5%	11.1%	
		No	7	8	
			87.5%	88.9%	
4	Yes	1	0	1.00	
		14.3%	0		

Delivery	Vaginal delivery	Yes	6	3	0.13
			23.1%	9.1%	
		No	20	30	
			76.9%	90.9%	
	C-sections	Yes	14	1	0.001
			35.9%	3.1%	
		No	25	31	
			64.1%	96.9%	
BMI	≤25	Yes	12	4	0.043
			32.4%	12.1%	
		No	25	29	
			67.6%	87.9%	
	>25	Yes	8	0	0.001
			28.6%	-	
		No	20	32	
			71.4%	100%	