

The SPO2 levels was higher than 98% in all time intervals among both groups, and was only significantly higher in spinal anesthesia group at 3 min and 6 min, while it was higher in saddle anesthesia group at 15 min, as illustrated in figure (5).

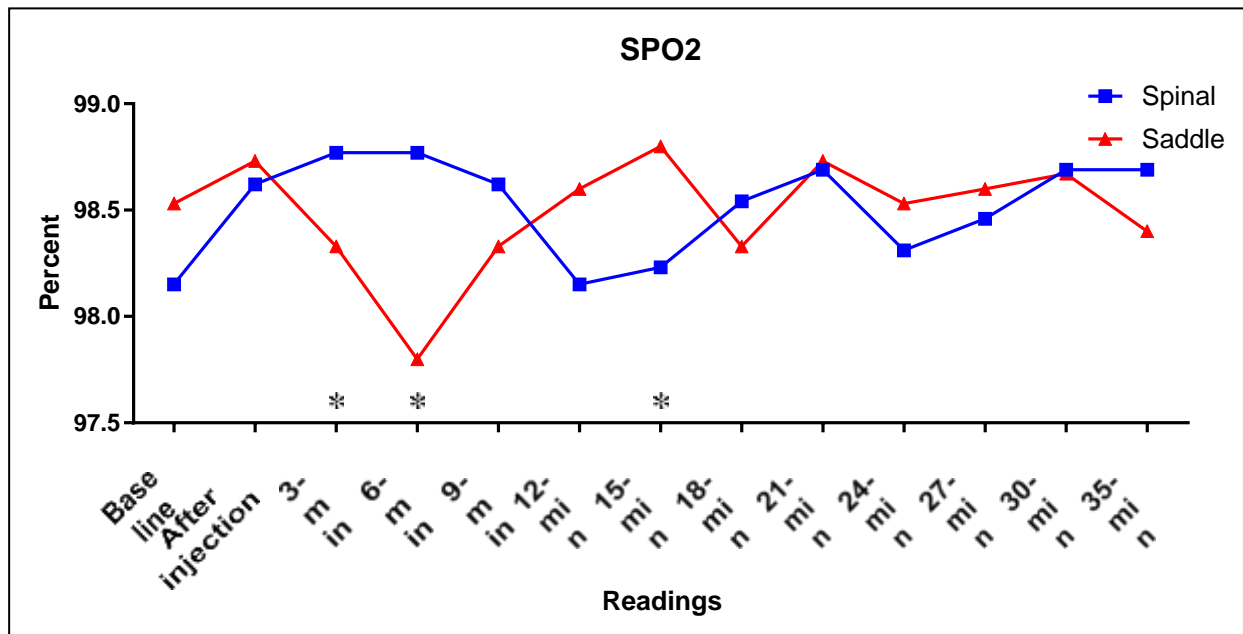


Figure (5): distribution of SPO2 at different intraoperative time intervals according to study groups (the asterisk indicates statistically significant difference, p -value <0.05)

There was a statistically significant association between type of anesthesia and the use of phenylephrine, as there were 12 (48%) patients who needed it in spinal anesthesia group compared to nil in saddle anesthesia group, also it was noted that most patients needed it on the sixth minute during the operation, as shown in Table (2).

Table (2): Distribution of the phenylephrine use according to study groups

Variable	Spinal	Saddle	Total	P-value
	No. (%)	No. (%)	No. (%)	
Phenylephrine use				
Yes	12 (48)	0 (0.0)	12 (24)	<0.001
No	13 (52)	25	38 (76)	

		(100)		
Total	25 (100)	25 (100)	50 (100)	
Fisher's exact test				

Discussion:

Regional anesthesia offers several advantages over general anesthesia for TURP. The reduction in intraoperative blood loss, decreases the hypercoagulable state in the postoperative period and maintain normal coagulation and platelet function; these benefits are believed to be due to modulation of the neuroendocrine response to tissue injury, change in the patient's mental status provides an early indication that excessive absorption of irrigating fluid has occurred, early detection of bladder perforation secondary to over distention with irrigation fluid or contact of the bladder wall with the surgeon's resectoscope. Conscious patients might experience symptoms related to perforation well before it becomes apparent to the surgeon, alerting the operating team early on. ^(7,8)

Spinal anesthesia and saddle block are adequate for TURP procedure in which the visceral pain sensation from the prostate and bladder neck is transmitted by afferent parasympathetic nerve fibers derived mostly from the second and third sacral nerve roots travelling with the pelvic splanchnic nerves.

Becker *et al.*, In his study Concluded that the most important factors that affect the distribution of the local anesthesia in cerebro-spinal fluid is the physical characteristics of the local anesthetic solution and the position of the patient ⁽⁹⁾, also various studies have already been done using 2 ml of 0.5% hyperbaric bupivacaine for TURP (Pitkanen *et al.*, 1984; Ozmen *et al.*, 2003) ^(10,11)

In current study the group A and group B both received 10 mg of hyperbaric bupivacaine (2 ml of 0.5%) but group A directly lying supine after injection and group B sitting for 10 min. then lying supine. In both groups the anesthesia was provides adequate anesthesia for the patients, in group A we note that hemodynamic changes more and statistically significant ($p < 0.05$) than group

B and so the vasopressor requirement more in group A.

current results supported by Bhattacharyya, Susmita *et al.*, (Incidence of hypotension and vasopressor requirement was less ($P < 0.01$) in patients received saddle block in compare to patients received spinal anesthesia in which both groups received 10 mg hyperbaric bupivacaine. Adequate surgical condition was achieved in both groups.)

Gujrala *et al.*, (saddle block done with 5mg of hyperbaric bupivacaine 1ml of 0.5% with 50 mcg fentanyl used in patients with mitral and aortic valve replacement and tricuspid annuloplasty for TURP without any deleterious cardiovascular effect.)⁽¹²⁾

Also, some of the studies that support our study that noted that HR values decreases after the spinal anesthesia^(13,14).

Conclusion: The hemodynamic changes and vasopressor requirement are less with saddle block, as well as Saddle block provide s adequate anesthesia for TURP procedure.

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