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Performing a Continuous Subarachnoid Anesthesia in ASA 2 or ASA 3 patients undergoing Laparotomic Prostatectomy provides hemodynamic stability and painless postoperative recovery.

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Prostate cancer is the second cause of death among men aged 65 years and over, and its incidence is related to age¹. Surgical treatment is usually performed under general anesthesia and followed by 24 hours of opioid analgesy at least. These strategies have both immunodepressive effects and promote metastatization², besides leading to long term hospitalization. Providing a proper anesthetic plan and an adequate postoperative analgesia, while preserving hemodynamic stability, may be challenging in high-risk elderly patients with comorbidities. Several studies were conducted to find alternative techniques to general anesthesia for prostatectomy³ and abdominal surgery in general⁴. We performed a Continuous Subarachnoid Anesthesia (CSA) in two cases of open radical prostatectomy. The patients involved were affected by hypertensive ischemic heart disease, chronic vascular encephalopathy and COPD, thus at risk of postoperative ischemic or neurological side events and extubation failure, especially under general anesthesia. In the operating room, for each patient, previously informed about the risks and benefits of the procedure, a peripheral venous access was obtained with a 18G catheter. Then, we performed a CSA with a Sprotte needle 21G x 103 mm at L2-L3 level, followed by the insertion of a microcatheter in the subarachnoid space for three-four cm, through which we injected 2,5 mg of 0,5% Levobupivacaine. After five minutes, we injected further 2,5 mg of the same molecule. When T10 anesthetic level was reached, the procedure began. We started the sedation with Propofol 1%, 1 mg/kg/hr, to promote patients relaxation. They remained in spontaneous breathing with additional oxygen, 3 lt/min, delivered through nasal cannulae. Every hour we administered a rescue bolus of 1,5 mg Levobupivacaine 0,5% through the microcatheter, to maintain a good anesthetic plan.

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saturation levels by pulse oximetry (table 1). There was no need to administer vasoactive drugs. In the following 24 hours, Levobupivacaine 0,0625% was infused through the microcatheter using an infusion pump, at a rate of two ml/hr. Hemodynamic parameters, Bromage and NRS scores were assessed, as well as the detection of headache, delirium and paresthesia. None of them was noticed, and Bromage score was zero two hours after the arrival in PACU. A patient experienced pain, referred as two on NRS scale, 12 hours after the CSA, so we administered Paracetamol 1g EV. Both patients and surgeon were satisfied with the procedure. Postoperative opioid sparing analgesia led to a faster recovery, and allowed to maintain the complete vigilance of the patients. We are confident this technique could be a viable alternative for elderly high-risk patients with comorbidities undergoing a laparotomic procedure, in order to avoid the risks of general anesthesia, to promote opioid sparing strategies, faster recovery and shorter hospitalization. Moreover, CSA can reduce the necessity of postoperative intensive care unit admissions, and, in the SARS-CoV2 pandemic era, sparing ICU beds and resources may be crucial. Further studies are needed to confirm our findings.

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TABLES

Table I.— *Intraoperative assessment of hemodynamic parameters.*

| PATIENT 1 | | | |
|----------------------------------------------|----------------------------------|-----------------------------|---------------------|
| <i>Timing of CSA</i> | <i>Blood Pressure (mmHg)</i> | <i>Heart rate (bpm)</i> | <i>SpO2 (%)</i> |
| <i>T1: basal</i> | <i>121/87</i> | <i>75</i> | <i>95</i> |
| <i>T2: just after CSA</i> | <i>117/65</i> | <i>79</i> | <i>98</i> |
| <i>T3: 10 minutes later</i> | <i>118/65</i> | <i>71</i> | <i>100</i> |
| <i>T4: starting of the surgery</i> | <i>107/63</i> | <i>71</i> | <i>100</i> |
| <i>T5: first hour</i> | <i>104/71</i> | <i>78</i> | <i>99</i> |
| <i>T6: end of the surgery</i> | <i>90/65</i> | <i>79</i> | <i>98</i> |
| <i>T7: before leaving the operatory room</i> | <i>107/69</i> | <i>73</i> | <i>99</i> |
| <i>T8: PACU</i> | <i>110/70</i> | <i>74</i> | <i>100</i> |
| PATIENT 2 | | | |
| <i>Timing of CSA</i> | <i>Blood Pressure (mmHg)</i> | <i>Heart rate (bpm)</i> | <i>SpO2 (%)</i> |
| <i>T1: basal</i> | <i>120/80</i> | <i>64</i> | <i>98</i> |
| <i>T2: just after CSA</i> | <i>105/70</i> | <i>60</i> | <i>98</i> |
| <i>T3: 10 minutes later</i> | <i>100/70</i> | <i>60</i> | <i>98</i> |
| <i>T4: starting of the surgery</i> | <i>100/70</i> | <i>60</i> | <i>98</i> |
| <i>T5: first hour</i> | <i>99/65</i> | <i>60</i> | <i>98</i> |
| <i>T6: end of the surgery</i> | <i>105/70</i> | <i>65</i> | <i>98</i> |
| <i>T7: before leaving the operatory room</i> | <i>110/60</i> | <i>60</i> | <i>97</i> |
| <i>T8: PACU</i> | <i>115/60</i> | <i>60</i> | <i>97</i> |

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