Hand ischemia due to improper positioning during robotic prostatectomy

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A 65-year-old 81 kg gentleman, underwent a 3-hour robotic prostatectomy with lymph node dissection under general anesthesia. The patient was placed in steep Trendelenburg position with both arms tucked. After undraping at the end of surgery, the right palmar surface was swollen and had ischemic changes. The peripheral intravenous cannula on right dorsal surface was functional throughout the procedure. The fluids and all medications were given through the same peripheral access throughout the surgery. The patient’s right arm was most likely tucked very tight causing arterial and venous compression. An orthopedic surgeon and vascular surgeon were consulted immediately and compartment syndrome was ruled out. The patient’s hand was elevated at once. The radial and ulnar arteries showed good pulsations and were confirmed by an examination with a Doppler. Hand edema and ischemic changes resolved within the next hour and the patient was discharged with intact neurovascular function. Improper positioning leading to complications accounts for one third of anesthesia related medical legal claims in the United States. This suggests for careful attention be paid to position of arms when tucked during robotic surgery. A second timeout emphasizing importance of positioning can prevent such issues in robotic surgeries.