

The Introduction of a Tourniquet Checklist to Identify and Record Tourniquet Related Complications

Authors : Akash Soogumbur

Abstract : Tourniquets are commonly used in orthopaedic surgery to provide hemostasis during procedures on the upper and lower limbs. However, there is a risk of complications associated with tourniquet use, such as nerve damage, skin necrosis, and compartment syndrome. The British Orthopaedic Association (BOAST) guidelines recommend the use of tourniquets at a pressure of 300 mmHg or less for a maximum of 2 hours. **Research Aim:** The aim of this study was to evaluate the effectiveness of a tourniquet checklist in improving compliance with the BOAST guidelines. **Methodology:** This was a retrospective study of all orthopaedic procedures performed at a single institution over a 12-month period. The study population included patients who had a tourniquet applied during surgery. Data were collected from the patients' medical records, including the duration of tourniquet use, the pressure used, and the method of exsanguination. **Findings:** The results showed that the use of the tourniquet checklist significantly improved compliance with the BOAST guidelines. Prior to the introduction of the checklist, compliance with the guidelines was 83% for the duration of tourniquet use and 73% for pressure used. After the introduction of the checklist, compliance increased to 100% for both duration of tourniquet use and pressure used. **Theoretical Importance:** The findings of this study suggest that the use of a tourniquet checklist can be an effective way to improve compliance with the BOAST guidelines. This is important because it can help to reduce the risk of complications associated with tourniquet use. **Data Collection:** Data were collected from the patients' medical records. The data included the following information: Patient demographics, procedure performed, duration of tourniquet use, pressure used, method of exsanguination. **Analysis Procedures:** The data were analyzed using descriptive statistics. The compliance with the BOAST guidelines was calculated as the percentage of patients who met the guidelines for the duration of tourniquet use and pressure used. **Question Addressed:** The question addressed by this study was whether the use of a tourniquet checklist could improve compliance with the BOAST guidelines. **Conclusion:** The results of this study suggest that the use of a tourniquet checklist can be an effective way to improve compliance with the BOAST guidelines. This is important because it can help to reduce the risk of complications associated with tourniquet use.

Keywords : tourniquet, pressure, duration, complications, surgery

Conference Title : ICOSMAS 2023 : International Conference on Orthopedics, Sports Medicine and Arthroscopic Surgery

Conference Location : Toronto, Canada

Conference Dates : June 19-20, 2023