

Hypothesis The presence of skin bacteria, especially *Propionibacterium Acnes*, is more prevalent in the surgical field of patients treated for adolescent idiopathic scoliosis (AIS) than that of patients treated for adult spinal deformity (ASD). **Study design** Prospective, consecutive one-center study. **Introduction** Late surgical site infection (>90 days) is seen in 1.7 to 6.9% of patients undergoing surgery for AIS. *Propionibacterium Acnes* is reported to be the most common finding in these patients. However, the same pattern is not seen ASD patients. *P. acnes* is known to act as an opportunistic pathogen through biofilm. Particularly shoulder arthroplasty but also breast implants and cardiovascular device-related infections are known to high infection rates with the pathogen. However, whether inoculation is hematogenic or the result of bacterial contamination at the initial surgery is not known. **Methods** We included patients with at least two years since their last spine surgery (ASD group) or no prior surgery (AIS) undergoing surgery at our institution from January 1 through December 31, 2020. The patients were surgically prepared according to the consensus guidelines. Three muscle tissue samples were obtained before wound closure, and two positive cultures were considered a positive test result. Furthermore, the unused rod tip was sent for sonication. All cultures were observed for 14 days. All positive tests for skin bacteria were whole genome sequenced (WGS) in order to rule out a single contaminate source among the surgical staff. **Results** We included 60 AIS patients and 23 ASD patients. There were no statistically significant differences between the 2 groups regarding surgical time or blood loss. Cultures were positive in 41 AIS patients (68%) and in 2 ASD patients (8.6%). Of the 41 positive AIS cultures 38 had *P. Acnes* as the only pathogen. The remaining were other skin bacteria. Bacteria were found on 38 of the rod tip (63%) all were *P. acnes*. WGS showed no sign of a single contaminate source. **Conclusion** *P. acnes* is present in the muscle tissue of most patients surgically treated for AIS. In the majority of AIS cases the same bacteria were found on the unused sterile implant only handled by the surgeons, possibly by contamination from the surgical gloves. Surgeons treating these patients should therefore make sure of targeting this pathogen in their prophylactic strategy.