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ANTIMICROBIAL PROPHYLAXIS TO PREVENT SURGICAL SITE INFECTION IN ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) PATIENTS UNDERGOING POSTERIOR SPINAL FUSION (PSF) – 2 DOSES VS ANTIBIOTICS TILL DRAIN REMOVAL

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INTRODUCTION: Peri-operative antimicrobial prophylaxis (AMP) reduces incidence of surgical site infection (SSI). Lack of consensus regarding the ideal drug, dosage and duration of prophylaxis exists. “CDC guideline for the prevention of SSI” has made recommendations regarding AMP, however paucity of literature regarding application of this guideline exists. **AIM:** Document efficacy of preventing SSI of our present AMP protocol (2 doses only) based on CDC guideline, and compare it to our previous protocol of antimicrobials till drain removal. Evaluate if Cephazolin, was safe, efficacious in preventing SSI and identify risk factors for SSI. **Method:** 226 AIS patients who had a PSF reviewed. Patient characteristics, pre-operative, intra and post operative risk factors for infection, drug name, number of doses administered, superficial or deep SSI and wound healing aberrations noted. **RESULTS:** Cephazolin administered in 224 patients, vancomycin in two; no adverse drug reactions. 155 patients(Group-A) received 2 doses of AMP and 71 patients (Group-B) till drain removal (range 3-5days). Overall spine wound SSI 1.7%. Three (1.9%) group-A and one (1.4%) group-B patient had spine wound SSI, no SD($p=1.0$). Two(1.2%) iliac wound SSI in group-A and one(1.4%) in group-B, No SD($p=1.0$). 9(5.8%) group-A and 7(9.8%) group-B patients had spine wound healing aberrations ($p=0.48$). One(0.6%) group-A and four(5.6%) group-B patients had iliac crest wound healing aberrations ($p=0.05$). No SD observed.

CONCLUSIONS: First study on the AMP protocol in scoliosis surgery. Two doses of AMP as effective as continued antimicrobial use until drain removal. Incidence of SSI comparable to literature. Cephazolin effective and safe for AMP.