Preventive Measures for Post Surgical Infections

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Editorial

After surgery deaths were come to almost zero level due to invention of Penicillin (discovered in London by Sir Alexander Fleming in September, 1928) and later, other antibiotics with better specificity to particular strain of bacteria. All bacteria are not bad; they are everywhere and are mostly harmless. Some are even quite helpful; others are pathogenic and can cause diseases. Some microorganisms can be spread through the air. Nosocomial infections are infections that have been caught in a hospital and are potentially caused by organisms that are resistant to antibiotics. A nosocomial infection is specifically one that was not present or incubating prior to the patient's being admitted to the hospital, but occurring within 72 hr after admittance to the hospital. Vectors for infection in these facilities include vomit, blood, urine, and feces. A bacterium named Clostridium difficile is now recognized as the chief cause of nosocomial diarrhea in the US and Europe. Methicillin-Resistant Staphylococcus Aureus (MRSA) is a type of staph bacteria that is resistant to certain antibiotics and may be acquired during hospitalization. Postsurgical patients are particularly vulnerable to hospital-acquired infection. Illnesses can be transmitted by health care providers who neglect proper methods of sanitation.

Sometimes these illnesses are deadly, for instance meningitis or pneumonia. For such diseases antibiotics are essential. However, overusing or incorrectly taking antibiotics can developed antibiotic resistance to the antibiotic to which they have been exposed, which means the antibiotic cannot kill the bacteria or stop them from multiplying. The WHO said there were 12 "priority pathogens" posing a significant risk to human health, some of which have already evolved into superbugs. The list is divided into "critical", "high", and "medium" priorities, based on how urgent the need for new antibiotics to treat the bug is. As antibiotic resistance worsens and superbugs become stronger, so do the chances of acquiring infections that aren’t treatable. These superbugs can put surgery patients, particularly those who are also undergoing chemotherapy, at risk for developing serious problems.

Latrogenic infection is complex because it has so many causes, including chance, negligence, medical error, and interactions of prescription drugs. However, common usage of the term "nosocomial" is now synonymous with hospital-acquired illness. Nosocomial infections are infections that have been caught in a hospital and are potentially caused by organisms that are resistant to antibiotics. A nosocomial infection is specifically one that was not present or incubating prior to the patient's being admitted to the hospital, but occurring within 72 hr after admittance to the hospital.

Latrogenic infections are those that occur during hospitalization or through treatment in another health care setting. The risks associated with adverse drug reactions typically occur when health care providers lack understanding and education about the prescribed drug. One of the most significant issues in drug-drug interactions resulting in iatrogenic illness is a change in the gastrointestinal tract and liver that leads to metabolic problems. Alcohol intake and smoking can also affect the way drugs are metabolized. One study of hospitalized patients showed that up to one-half of drug-related problems occur because of errors in prescribing, administering, dispensing, and transcribing records of drugs. Inadequate monitoring of patients was cited in another study, meaning that the appropriate laboratory tests were either not ordered or were incorrectly interpreted. Also, a lack of sanitation frequently leads to latrogenic illness. This could happen in a wide range of settings, from food waste and dirty restrooms to devices, such as surgical equipment, catheters, and wound dressings, that are supposed to be sterile.