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Quantifying periprosthetic infections could be useful to support prevention strategies and decision makers. A further challenge for the Italian National Health System

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Introduction

Since hip and knee periprosthetic joint infections are associated with significant morbidity and mortality, they are a challenge to public health. In the upcoming years, due to the aging population, the number of people that will undergo knee and hip arthroplasty will grow, thus probably leading to an increase in periprosthetic infections.

The present study aims at presenting the trends of periprosthetic joint infections in Italy, to provide a useful basis for future studies.

Materials and Methods

The national Hospital Discharge Record (HDR) Database (years 2001-2015) was queried for both hip and knee revision/removal procedures and primary procedures. Then, the trend of annual percentage incidence rate (defined as the ratio of revision/removal procedures for periprosthetic infection to primary procedures) was calculated.

Results

In the observed period, the Italian annual incidence rate increased for both joints (hip: from 0.99% to 1.46%; knee: from 1.45% to 1.92%).

Discussion

The increased rate highlights the need of setting up strategies to prevent infections. Monitoring programs have proven to reduce infection incidence. HDRs allow quantifying deep infections therefore can be used to monitor their trend over time. The obtained data can be crucial to support decision makers in implementing prevention strategies.

Conclusion

Eradication of periprosthetic joint infections is an unrealistic expectation. However, it is essential to quantify them in order to define prevention strategies. Since HDRs underestimate the count of less severe infectious complications, results that are more precise can be reached if data are collected from different sources other than HDRs, such as national arthroplasty registries and microbiological databases.

Notes