A SYSTEMATIC REVIEW OF THE METHODOLOGICAL AND REPORTING QUALITY OF CASE SERIES IN SURGERY

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INTRODUCTION

• Case series
  - Uncontrolled study
  - Samples participants with specific outcomes +/- particular intervention

• Daziel et al (2005) – case series are used in 30% of Health Technology assessments - Analysis constrained by poor reporting

• No standardised guidelines for reporting case series currently exist

OBJECTIVE

• To systematically review literature relevant to the reporting deficiencies of case series
METHODS

• Systematic review of methodological and reporting quality in surgical case series
• Protocol registered prospectively: National Institute of Health Research (NIHR) PROSPERO database (CRD42015016145)
• Reported in line with PRISMA statement
• Electronic searches of MEDLINE, EMBASE, Cochrane Methods Register, Science Citation index and Conference Proceedings Citation from start of indexing to 5 Nov 2014

• Five areas of deficiency:
  – failure to use standardised definitions
  – missing or selective data
  – Lack of transparency or incomplete reporting
  – Whether alternative study designs were considered
  – Other issues
RESULTS

Summary of results

- Failure to use standardised definitions
- Missing or selective Data
- Lack of transparency or incomplete reporting
- Alternative study designs considered
- Other issues

Percentage of studies reporting item

Area of deficiency
RESULTS

Subgroup analysis

<table>
<thead>
<tr>
<th>Area of deficiency</th>
<th>Articles (n=8)</th>
<th>Systematic Reviews (n=3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to use standardised definitions</td>
<td>60%</td>
<td>30%</td>
</tr>
<tr>
<td>Missing or selective Data</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Lack of transparency or incomplete reporting</td>
<td>70%</td>
<td>50%</td>
</tr>
<tr>
<td>Alternative study designs considered</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Other issues</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Percentage of studies reporting item
DISCUSSION

- Methodological and reporting issues among case series
  - Failure to correctly define patient population, demographics, age,
  - Prognostic information
- Chalmers (1989) few formal assessments of case series
- CONSORT – improved quality of reporting of RCTs

- Methodological and reporting quality of surgical case series needs improvement
- Clear evidence-based guidelines required
- PROCESS guideline – Preferred Reporting Of CasE Series in Surgery
REFERENCES


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