The Top 100 Most Impactful Articles on the Rotator Cuff: An Altmetric Analysis of Online Media

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Financial Disclosures

• None
Background

- Rotator cuff tears are one of the most common injuries evaluated by orthopaedic sports medicine surgeons, affecting 30-50% of people over the age of 50

- The rotator cuff is one of the most researched topics in orthopaedic shoulder surgery to-date

- Research pertaining to the rotator cuff is generating interest among physicians as well as the lay public
Background (cont’d)

• Conversation regarding rotator cuff injuries frequently extends to mainstream media and general public

• Social media platforms: increasingly popular means of disseminating scientific research

• Prior studies reported the most impactful rotator cuff articles by citation density → does not account for distribution of rotator cuff research in online media
Background (cont’d)

- Altmetric – database that tracks online attention generated by scientific articles
- Altmetric Attention Score (AAS) – weighted score that assesses the online impact of an article across various Internet platforms
Methods


• Results were stratified by AAS and screened to include only articles pertaining to rotator cuff

• 100 articles with highest AAS were included for data extraction and analysis
Results

• AAS range: 47-676 (median: 74.5; IQR: 59-114)

• Most frequently published in 3 journals: AJSM (13%), JSES (11%), and JBJS (8%)

• Article types: Systematic Review / Meta-Analysis (29%), Randomized Controlled Trial (15%)

• Article topics: Treatment (38%), Epidemiology (19%), Patient Satisfaction (10%)

• Geographic Origin: 44% European, 25% USA
Conclusions

- Most impactful rotator cuff articles in online media:
  - High level-of-evidence
  - Original research
  - European
  - Topics with direct applications to clinical practice

- Very little overlap between highest AAS articles and most cited articles previously reported by Kraeutler et al. and Familiari et al.
Limitations

• Altmetric is updated daily in a semi-continuous fashion

• Journals or individuals could artificially inflate the AAS of their own articles

• Altmetric does not account for context of discussion and is solely dependent on volume of online mentions
References


Thank You!