# God in the Journal Club

Bundle of His - Topical Thursday

24 October 2024

# Topical Thursday

Every **last Thursday of the month**, we take a break from our usual 45 minutes of Bible study and instead have a discussion on a specific topic. Join us for a great evening!





# GOD IN THE JOURNAL CLUB (EVIDENCE BASED MEDICINE)

We attend journal clubs that discuss medical literature in the pursuit of evidence-based medicine. Do you perceive conflict in the interpretation of the evidence in medicine?

If you do, you are not alone! Join us to explore what the Bible says about evidence based medicine!

#### **Speaker Profile**

Church: Redemption Hill Church

PGY: 12

Mok is grateful for his journey from successful athlete to facing a career-ending injury, which led him to Christ in 2018. Now married to Belinda with three children—Emma, Caleb, and Micaiah—he finds joy in Bible studies.



Division of Sports Surgery, Consultant National University Hospital



1 Corinthians 4:7 What do you have that you did not receive?

Thursday, 24 October 2024 **9PM - 9:45PM** 

**Zoom - Link in BoH Group** 

## Self-Introduction

- Red Swastika Primary School Class of 2000
- Raffles Institution, Class of 2004
- Raffles Junior College, Class of 2006
- NUS Medicine, Class of 2012
- NUHS Ortho Residency, Exited 2022
   September
- Consultant, Division of Sports Surgery,
   National University Hospital
- Hobbies Reading Bible, Running, Teaching
- Married to Belinda; Children Emma, Caleb,
   Micaiah
- Saved in 2018/19



Testimony Transcript: https://mokyingren.sg/testimony

## **Journal Clubs**

- Evidence based medicine is crucial to provide best medical care for patients. We do not want to make decisions "by feeling"
- EBM practised in Conferences, Journal Cubs, CME points
- How about the spiritual dimension?
  - o Romans 11:36 from, through, to God
  - 2Cor 10:5 take every thought captive to Christ
- Case Study September 2024 Journal Club in our Sports Meeting

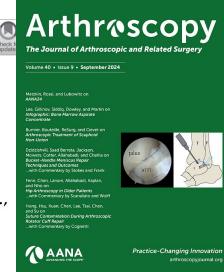
Augmentation of a Transosseous-Equivalent Repair in Posterosuperior Nonacute Rotator Cuff Tears With a Bioinductive Collagen Implant Decreases the Retear Rate at 1 Year: A Randomized Controlled Trial





## Augmentation of a Transosseous-Equivalent Repair in Posterosuperior Nonacute Rotator Cuff Tears With a Bioinductive Collagen Implant Decreases the Retear Rate at 1 Year: A Randomized Controlled Trial

Miguel Ángel Ruiz Ibán, M.D., Ph.D., Miguel García Navlet, M.D.,
Santos Moros Marco, M.D., Jorge Diaz Heredia, M.D., Ph.D.,
Arántzazu Hernando Sánchez, M.D., Raquel Ruiz Díaz, M.D., Carlos Vaquero Comino, MD.,
Maria Luisa Rosas Ojeda, MD., Gabriel del Monte Bello, MD., and
Jose Luis Ávila Lafuente, M.D.



## 1. Pay money to publish

\$3500 ①

Article publishing charge for open access

65 days

2. High Impact Factor
> 1 (NEJM 96.2)

4.4
2023 Impact Factor

4.3
2023 5-Year Impact Factor

0.01656

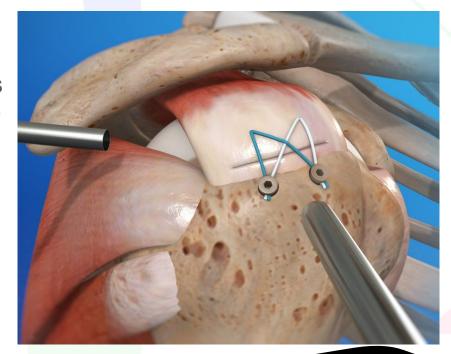
In general, an impact factor of 10 or higher is considered remarkable, while **3 is good**, and the average score is less than 1. Who invented the impact factor? Eugene Garfield, the founder of the Institute for Scientific Information (ISI), invented the measurement known as impact factor.

## Introduction

 Arthroscopic rotator cuff repair is a successful surgical procedure with good clinical outcomes but failure of repair is not uncommon with studies showing re-tears occur in 10% to 75% of repairs

 Both mechanical and biological factors must be considered

Trying to maximise outcomes of Rotator Cuff Repair Surgery



# Aims and Hypotheses

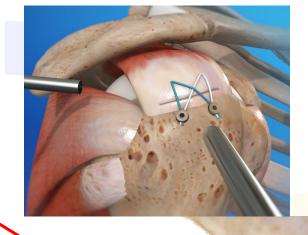
#### Aim

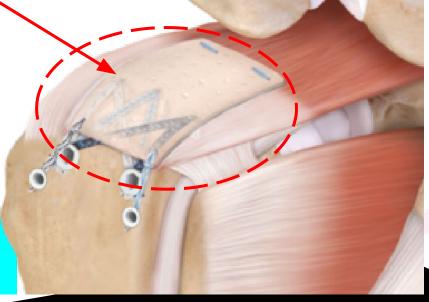
To determine whether addition of a Bioinductive Collagen Implant (BCI) over the repair rotator cuff tears improves healing rate on MRI at 12 months followup

### Hypothesis

 Patients treated with BCI augmentation have lower retear rates, increased tendon thickness and better clinical outcomes at 12 months follow-up

Does adding a Bioinductive Collagen Implant (BCI) improve Rotator Cuff Repair Success?





## Methods and Materials

## Study design

- 2 armed multicentric, triple blinded (patient, outcome assessor, data analyst) randomized superiority trial
- 8 Orthopaedic surgeons with 10 year experience in arthroscopic cuff repair from 4 surgical centers in Spain
- Selected patients were
  - ≥ 18years old
  - Fully repairable tears

Randomized Trial
2 Groups - one has BCI, one does not have →
Follow up for difference

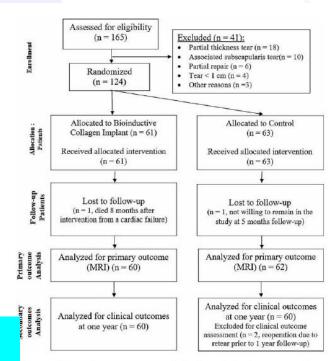


diagram of the study. (CONSORT, Consolidated Standards of Reporting Trials.)

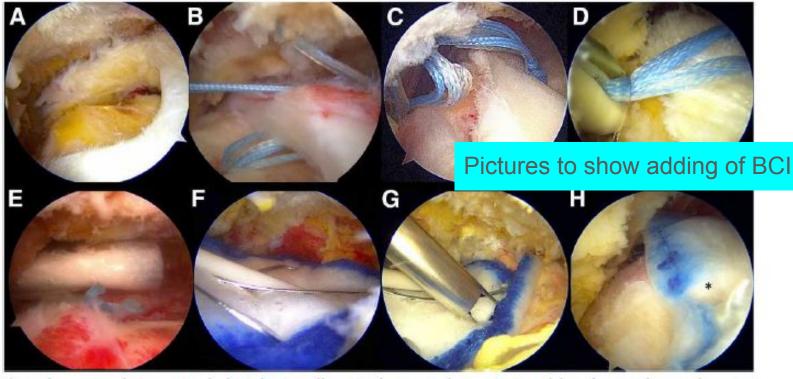


Fig 1. The repair technique using the bioinductive collagen implant. An arthroscopic view of the subacromial space of a patient with a medium-sized, full-thickness tear in the left shoulder (A). The tear is repaired using a transosseous equivalent (TOE) technique with 2 medial-row anchors with sutures and tapes passed through the medial tendon (B) and tied (C). The tapes are brought laterally in a rip-stop configuration over the tied sutures and secured into one lateral anchor (D). The Bioinductive Collagen Implant (BCI) is inserted through the lateral portal (E) and adjusted to cover the repair (F). It is fixed medially to the tendon with 5 to 8 absorbable anchors (G) and laterally to the bone with 1 or 2 PEEK anchors (\*) that are placed so as not to collide with the lateral row anchors, distally to them if possible, as seen here (H). The final BCI covers the repair starting 5 to 10 mm distal to the lateral edge of the repair and reaching the tendon 5 to 15 mm proximal to the medial sutures.

Criteria develope	l by Sugaya et al. to evaluate tendon healing.			
Sugaya classification				
Туре І	Sufficient thickness, homogeneous tendon (low signal on T2 images)			
Туре ІІ	Sufficient thickness, partial high-intensity from within the tendon			
Type III	Insufficient thickness without discontinuity			
Type IV	Minor discontinuity on more than one slice, suggesting a small tear			
Type V	Major discontinuity suggesting a moderate or large			

## **Primary Outcome Measure**

Results

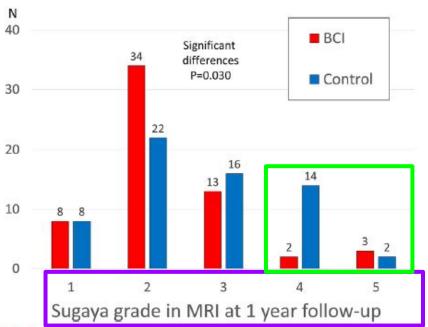


Fig 5. Assessment of rotator cuff integrity in the 12-month magnetic resonance imaging using the Sugaya Classification of the 122 tendon repairs.

- Augmentation of repair with Bioinductive Collagen Implant
  - Reduces tear rate at 12 months by Two-Thirds
  - Similar improvements in clinical outcomes

## **Sugaya Grading**

4 = Minor Tear

5 = Major Tear

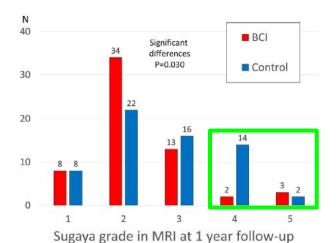
**Control** 14 + 2 = 16 tears

**BCI** = 3+2 = 5 tears

(11 less - 3 less)

## Recommendations

- Bioinductive Collagen Implant results in lower retear rates at 12 months follow up
- "Use BCI"



**Fig 5.** Assessment of rotator cuff integrity in the 12-month magnetic resonance imaging using the Sugaya Classification of the 122 tendon repairs.

## Where is God so far?

# Romans 4:3 "What Does Scripture Say"

#1 God's Orderly Creation Enables
 Research to Point to Himself

 #2 Man's sinfulness introduces disorder to point to ourselves

#3 God is sovereign, Man is responsible

 #4 God subjected Evidence Based Medicine (EBM) to futility to bring us back to Him



## #1 God's Orderly Creation Enables Research to Point to Himself

#### Creation Is Orderly

- 1Cor 14:33 For God is not a God of disorder but of peace.
- Psalms 104 Creation psalm reveals great order in His creation
  - V5 He set the earth on its foundations, so that it should never be moved.
  - V9 The mountains rose... to the place that you appointed for them. You set a boundary that they may not pass.

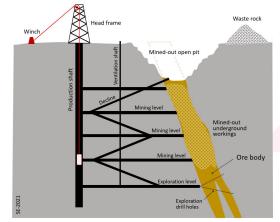
#### Creation is Discoverable and Manipulatable

Job 28:3-4 Man puts an end to darkness and searches out to the farthest limit... He opens shafts in a valley... Man puts his hand to the flinty rock and overturns mountains by the roots. He cuts out channels in the rocks

#### Creation is meant to point to Himself

- Ps 19:1-2 The heavens declare the glory of God, and the sky above proclaims his handiwork.
- Rom 1:20 For his invisible attributes, namely, his eternal power and divine nature, have been clearly perceived...So they are without excuse.





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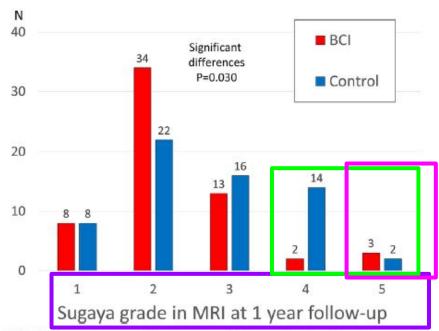
- Reflections on Truth #1. How should we respond?
  - Attitude of
    - Gratefulness
    - Amazement
  - Actions of
    - Evangelism to point others to the God behind all these

What are your immediate thoughts?

Sugaya classific	ation
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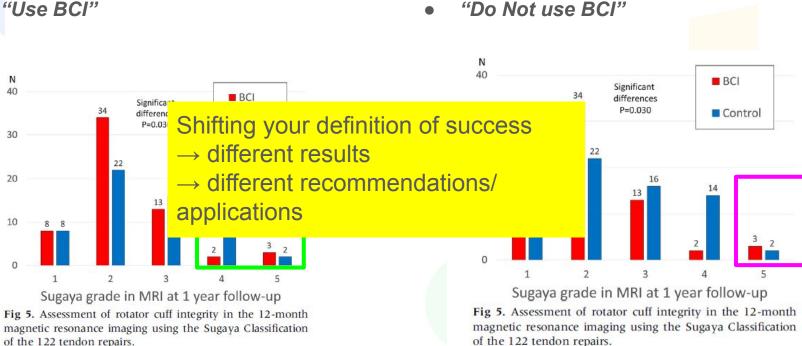
Changing the "definition of success" changes your results dramatically!

## Recommendations

- Bioinductive Collagen Implant results in **LOWER retear rates** at 12 months follow up
- "Use BCI"

of the 122 tendon repairs.

Bioinductive Collagen Implant results in **HIGHER** retear rates at 12 months follow up



## #2 Man's **sinfulness** introduces **disorder** to point to **ourselves**

#### We turn away from God

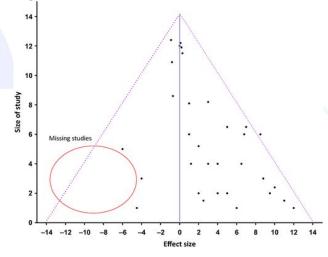
- Exo 32:4 And he received the gold from their hand and fashioned it with a graving tool and made a golden calf. And they said, "These are your gods, O Israel, who brought you up out of the land of Egypt!"
- Isa 2:8 Their land is filled with idols; they bow down to the work of their hands, to what their own fingers have made.

#### Resulting in Disorder

- Suppress Truth (cf. funnel plot to detect "missing studies")
  - Romans 1:18 For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who by their unrighteousness suppress the truth.
- Manipulation of Data Falsely balancing the Results (cf. NASCIS trial - improper subgroup analysis)
  - Proverbs 11:1 A false balance is an abomination to the LORD, but a just weight is his delight.
- Bribery (cf. Need to disclose conflict of interest)
  - Prov 17:23 The wicked accepts a bribe in secret to pervert the ways of justice.

#### Desire to point to Ourselves

- James 5:5 You have lived on the earth in luxury and in self-indulgence.
- 2 Timothy 3:2 For people will be lovers of self...



Introduction

The National Acute Spinal Cord Injury Studies (NASCIS) of the 1980s and 1990s promoted the use of high-dose methylprednisolone in acute spinal cord injury but were widely criticized in subsequent years on aspects of methodology and statistical analysis (1-4). The methylprednisolone controversy sparked by NASCIS was recently addressed in a comprehensive review of acute spinal cord compression, thus highlighting the continued relevance of this issue (5). Improper and misleading subgroup analyses are fundamental errors in both NASCIS II and III. Unfortunately, issues in subgroup analysis are alarmingly

common in the medical literature, likely contributing to the pr surrounding the NASCIS trials (4). It is worth revisiting the pr subgroup analysis in order to provide tools for the neurologist NASCIS and critically assess future trials. Disclosure

No conflict of interest related to this presentation

Consultant: none Stocks: none

Publications Editorial Board: AJSM; KSSTA

Educational/Research Support: Smith & Nephew; Dep

## **Disclosures**

Augmentation of a Transosseous-Equivalent Repair in Posterosuperior Nonacute Rotator Cuff Tears With a Bioinductive Collagen Implant Decreases the Retear Rate at 1 Year: A Randomized Controlled Trial



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## Smith-Nephew





More than 10 years of clinically demonstrated results<sup>1</sup>

The REGENETEN Implant reduces rotator cuff re-tear rates compared with conventional techniques,3-7 offers rapid recovery8 for partial-thickness tears8 and provides positive clinical outcomes. 1268

#### SmithNephew

REGENETEN Bioinductive Implant









2281, S. Ruiz (ban MA, et al. Preliminary Report, SECSC, 2022, 6. Bushnell BD, et al. /SES int. 2021;5(2):228-227, 7. Thon SQ, et al. Am / Sports Med. 2019;47(8):1901. Smith & Nephew Pty Ltd (Australia) smith-nephew.com/en-au. Smith & Nephew Ltd (New Zealand) smith-nephew.com/en-nz. 0Trademark of Smith+Nephew.All t

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## Ecc 1:9 "Nothing new under the sun"

False Positive: A Year of Error, Omission, and Political Correctness in the New England Journal of Medicine

Reviewed by: Arthur Gale 1,8

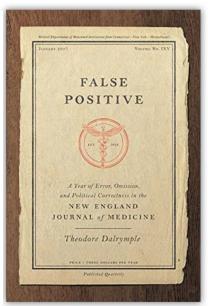
False Positive: A Year of Error, Omission, and Political Correctness in the *New England Journal of Medicine* by Theodore Dalrymple. Encounter Publishing. ASIN: B07FZB7Y56

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PMCID: PMC7144712

Theodore Dalrymple is the pen name of a retired British psychiatrist and writer. He has written a book highly critical of the *New England Journal of Medicine* (NEJM). Instead of just writing an overall critique of the journal, Dalrymple uses the clever literary device of analyzing several articles from each issue of the NEJM published in the year 2017. He then demonstrates how flawed and biased these articles are.





**Second Opinion** 

Ex-editor of NEJM tells how Big Pharma has corrupted academic institutions



https://www.youtube.com/watch?v=q8FeLQVI5Lw

DePuy knew about hip implant's high failure rate three years before it was rec	called
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BMJ 2013; 346 doi: https://doi.org/10.1136/bmj.f626 (Published 29 January 2013) Cite this as: RMJ 2013; 346;f626

Article Re	elated content	Metrics	Responses	
Deborah Cohen				
Author affiliation	ns 🗸			

## #2 Man's **sinfulness** introduces **disorder** to point to **ourselves**

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#### Resulting in Disorder

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#### Desire to point to Ourselves

- James 5:5 You have lived on the earth in luxury and in self-indulgence.
- 2 Timothy 3:2 For people will be lovers of self...

- Reflections on Truth #2. How should we respond?
  - Attitude
    - Sadness
    - Admit the problem, do not justify it "everyone is doing this"
  - Actions
    - Self reflect how have we been perpetrators of this?
    - How do we stand up for the patients?

What are your immediate thoughts?

## #3 God is **sovereign**, Man is **responsible**

Acts 2:23 this Jesus, delivered up according to the definite plan and foreknowledge of God, vou crucified and killed by the hands of lawless men.

- Human Responsibility No one is innocent
  - Matt 12:36 I tell you, on the day of judgment people will give account for every careless word they speak
    - Researchers will be held responsible
    - Manufacturers will be held responsible
    - Clinicians will be held responsible
  - Psalm 51 For I know my transgressions, and my sin is ever before me.
     Against you, you only, have I sinned and done what is evil in your sight.
- God's Sovereignty
  - God is in complete control over our plans and patient outcome
    - Prov 16:23 The lot is cast into the lap, but its every decision is from the Lord.
    - Prov 16:9 The neart of man plans his way, but the Lord establishes his steps.



#### What is the solution to all this mess?

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- How should we respond to Truth #3?
  - Be honest in our research
  - Our duty in keeping up to date with evidence
  - Discernment in reading evidence
  - Conscience in applying evidence to patients
    - Rom 14:23 For whatever does not proceed from faith is sin.

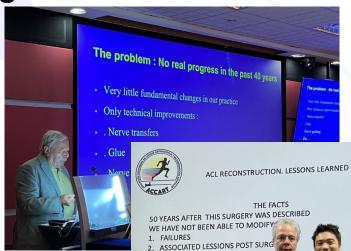
## #4 God subjected EBM to futility to bring us back to Him

#### Fall resulting in Futility in Research

- Genesis 3:17-18 And to Adam he said, "Because you... and have eaten of the tree... cursed is the ground because of you... in pain you shall eat of it all the days of your life... thorns and thistles it shall bring forth for you... By the sweat of your face you shall eat bread...
  - God cursed
  - Effort is great
  - Results is poor
- Ecc 12:12 Of making many books there is no end, and much study is a weariness of the flesh.

#### Purpose of Futility

- Romans 8:20 For the creation was subjected to futility, not willingly, but because
  of him who subjected it, in hope that the creation itself will be set free from its
  bondage to corruption and obtain the freedom of the glory of the children of God.
- 2Peter 3:9 The Lord is not slow to fulfill his promise as some count slowness, but is patient toward you, not wishing that any should perish, but that all should reach repentance.



Rom 8:20-23

Futility's Hope

#### Observations/ Meaning

- 1. Reality of Futility
- Hope of Futility
   Product of Futility

20 For the creation was subjected willingly, but because of him who subjected it, in hope 21 that the creation itself will be set free from its bondage to corruption and obtain the freedom of the glory of the children of God. 22 For we know that the whole creation has been groaning together in the pains of childbirth until now. 23 And not only the creation, but we ourselves, who have the firstfruits of the Spirit, groan inwardly as we wait eagerly for adoption as sons,

3. SPORTS RETURN RATES.

**4 ARTRHRITIS INCIDENCE** 

mokyingren.sg/blog/futility-of-medicine

the redemption of our bodies.

# My Personal Reflections

- I do not have a strong desire for research → tend to be cynical with research
  - But this minimizes the amazingness of God's creation
  - Prideful in my thoughts, less encouraging in this aspect
- I struggle to to apply evidence, "Truth is somewhere in the middle" (LET - 80% vs 0%)
  - o Am I doing too little?
  - o Am I doing too much?
- I struggle to interpret results I gather myself
  - Statistically significant but not clinically significant?
- Solution is to look to God
  - Be amazed at God's creation and the research interests of others
  - Continue to trust in God while making decisions for my patients.
  - God will deliver me!

How about you?



Winner of the O'Donoghue Sports Injury Award

Lateral Extra-articular Tenodesis Reduces Failure of Hamstring Tendon Autograft Anterior Cruciate Ligament Reconstruction

2-Year Outcomes From the STABILITY Study Randomized Clinical Trial

Western University, London, Ontario, Canada

Alan M.J. Getgood,\* MD, FRCS(Tr&Orth), Dianne M. Bryant, MSc, PhD, Robert Litchfield, MD, FRCSC, Mark Heard, MD, FRCSC, Robert G. McCormack, MD, FRCSC, Alex Rezansoff, MD, FRCSC, Devin Peterson, MD, FRCSC, Devide Bardana, MD, FRCSC, Peter B. MacDonald, MD, FRCSC, Peter C.M. Verdonk, MD, PhD, Tim Spalding, FRCS, and the STABILITY Study Group Investigation performed at The Fowler Kennedy Sport Medicine Clinic,