

Case Report

Embryo Sign on Abdominal CT as the Footprint of Cecal Volvulus: Improved Practice Through Lessons Learned from a Case Report

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Abstract

Cecal volvulus is a rare cause of acute abdominal pain, resulting from torsion of the cecum and ascending colon due to abnormal mobility caused by inadequate peritoneal fixation. Clinical presentation is often vague and nonspecific, which can delay diagnosis and treatment. Computed tomography (CT) is the imaging modality of choice, as it not only confirms the presence and location of the volvulus but also identifies serious complications such as ischemia or perforation. Abdominal radiographs may be inconclusive, especially when the twisted bowel loop is fluid-filled, aligned antero-posteriorly, or obscured by adjacent gas-filled loops. We present the case of a 65-year-old woman who arrived at the emergency department with sudden-onset abdominal pain. Abdominal CT revealed classic signs of cecal volvulus, including the rarely reported ‘embryo sign,’ which proved crucial for swift diagnosis and intervention. Recognizing both common and less common CT features, such as the embryo sign, is paramount for rapid diagnosis and appropriate management in emergency situations. Familiarity with the full radiologic spectrum of this condition can significantly improve patient outcomes.

Keywords: abdominal CT; cecal volvulus; intestinal obstruction



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1. Introduction

Rokitansky first described cecal volvulus in 1837 [1]. This condition is rare and involves the twisting of the cecum. Cecal volvulus accounts for 11% of all intestinal volvulus, generally occurring in patients who are 30–60 years old. The age at presentation is influenced by the effects of dietary and cultural factors on intestinal mobility. An average

JCR Year2025

Open Access since 2011

ISSN

N/A

EISSN

2075-1729

JCR ABBREVIATION

LIFE-BASEL

ISO ABBREVIATION

Life-Basel

Journal information

EDITION

Science Citation Index Expanded (SCIE)

CATEGORY

BIOLOGY

LANGUAGES

English

REGION

SWITZERLAND

1ST ELECTRONIC JCR YEAR

2019

Publisher information

PUBLISHER

MDPI

ADDRESS

MDPI AG,
Grosspeteranlage
5, CH-4052
BASEL,
SWITZERLAND

PUBLICATION FREQUENCY

12 issues/year

Journal's performance

Journal Impact Factor

The Journal Impact Factor (JIF) is a journal-level metric calculated from data indexed in the Web of Science Core Collection. It should be used with careful attention to the many factors that influence citation rates, such as the volume of publication and citations characteristics of the subject area and type of journal. The Journal Impact Factor can complement expert opinion and informed peer review. In the case of academic evaluation for tenure, it is inappropriate to use a journal-level metric as a proxy measure for individual researchers, institutions, or articles. [Learn more](#)

2025 JOURNAL IMPACT FACTOR

3.9

View calculation

JOURNAL IMPACT FACTOR WITHOUT SELF CITATIONS

3.8

View calculation

Journal Impact Factor contributing items

Export

Citable items (3,979)

Citing Sources (4,198)

TITLE

CITATION COUNT

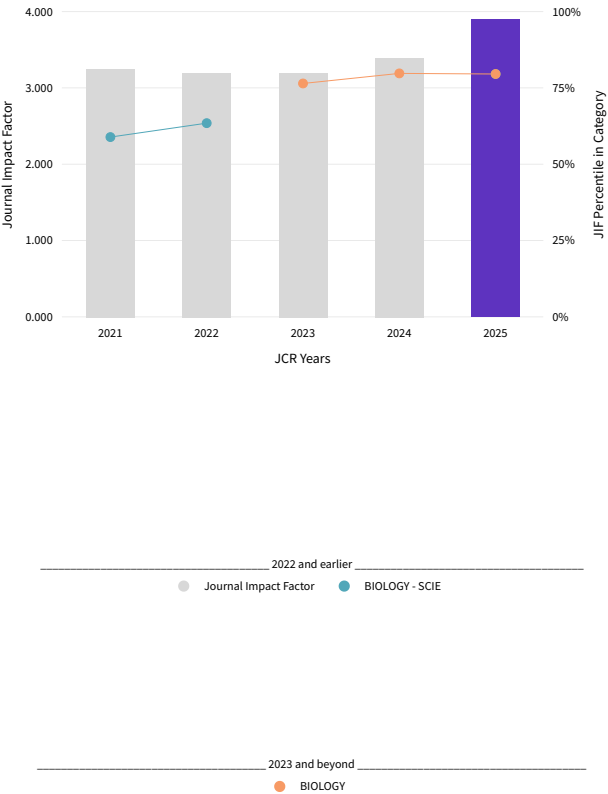
Plant Metabolomics: An Overview of the Role of Primary and Secondary...

160

Aiuto

Journal Impact Factor Trend 2025

Export



Short-Chain Fatty Acids and Human Health: From Metabolic Pathways to...	129	▼
Advancement in Solubilization Approaches: A Step towards...	87	▼
Integrating Artificial Intelligence for Drug Discovery in the Context of...	86	▼
Exploring the Frontiers of Neuroimaging: A Review of Recent...	80	▼
Artificial Intelligence and Healthcare: A Journey through History, Present...	61	▼
The Role of Silver Nanoparticles in the Diagnosis and Treatment of Cancer:...	61	▼
Multiple Brain Tumor Classification with Dense CNN Architecture Using...	58	▼
The Interplay between Obesity and Inflammation	57	▼
The Mechanism of Hyperglycemia-Induced Renal Cell Injury in Diabetic...	57	▼

[View All in Web of Science](#)

[View all years](#)

Journal Citation Indicator (JCI) [Export](#)

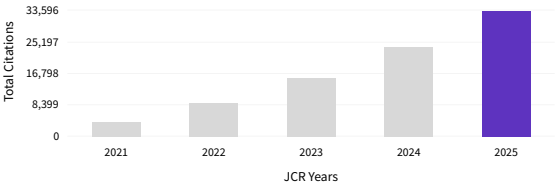
0.73

The Journal Citation Indicator (JCI) is the average Category Normalized Citation Impact (CNCI) of citable items (articles & reviews) published by a journal over a recent three year period. The average JCI in a category is 1. Journals with a JCI of 1.5 have 50% more citation impact than the average in that category. It may be used alongside other metrics to help you evaluate journals. [Learn more](#)

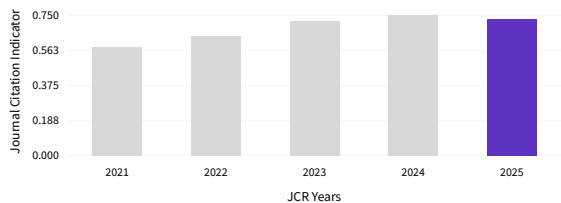
Total Citations [Export](#)

33,596

The total number of times that a journal has been cited by all journals included in the database in the JCR year. Citations to journals listed in JCR are compiled annually from the JCR years combined database, regardless of which JCR edition lists the journal.



[View all years](#)

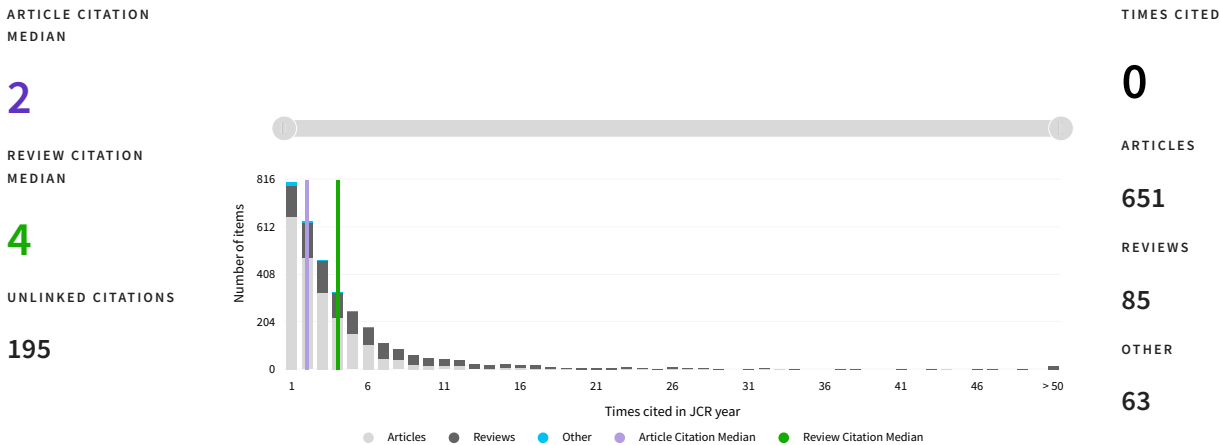


[View all years](#)

Citation distribution

[Export](#)

The Citation Distribution shows the frequency with which items published in the year or two years prior were cited in the JCR data year (i.e., the component of the calculation of the JIF). The graph has similar functionality as the JIF Trend graph, including hover-over data descriptions for each data point, and an interactive legend where each data element's legend can be used as a toggle. You can view Articles, Reviews, or Non-Citable (other) items to the JIF numerator. [Learn more](#)



Open Access (OA)

[Export](#)

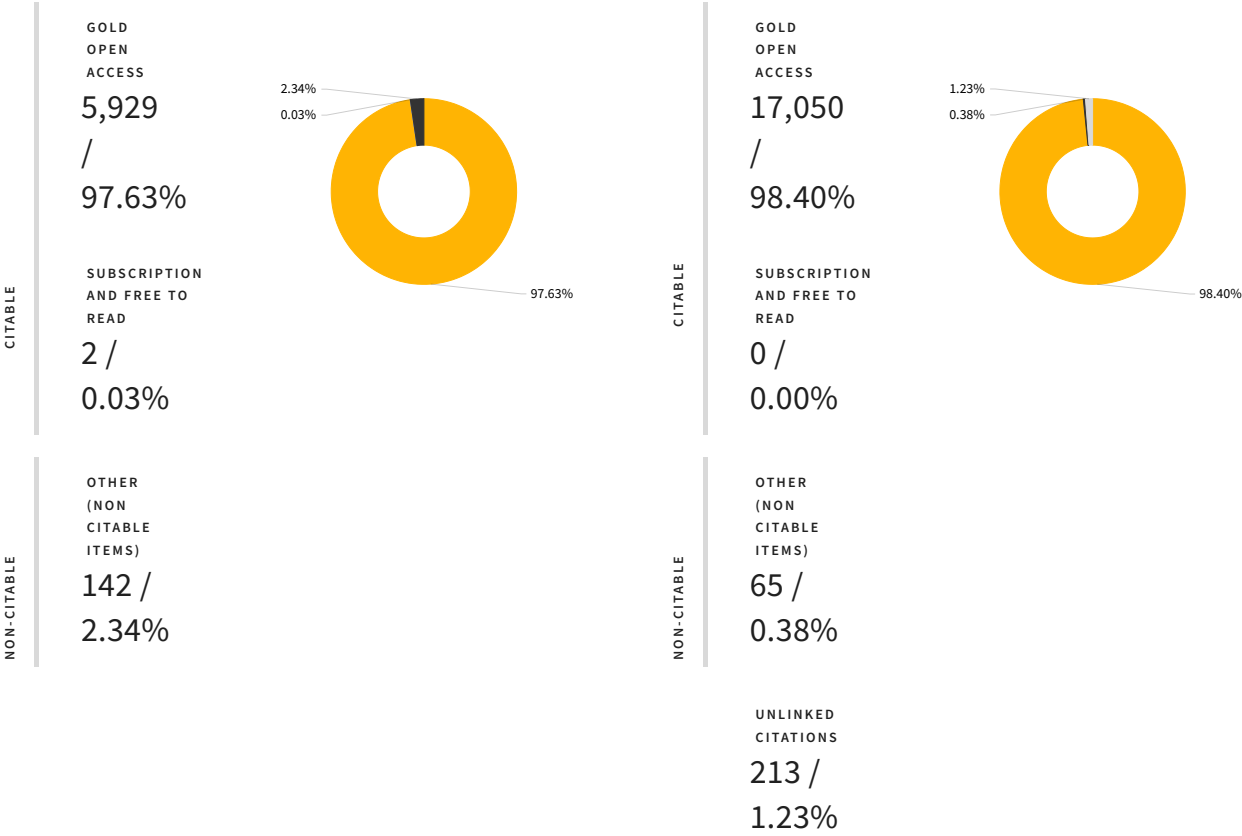
The data included in this tile summarizes the items published in the journal in the JCR data year and in the previous two years. This three-year set of published items is used to provide descriptive analysis of the content and community of the journal. [Learn more](#)

Items

TOTAL CITABLE	% OF CITABLE OA
5,931	99.97%

Citations*

TOTAL CITABLE	% OF CITABLE OA
17,050	100.00%



*Citations in 2025 to items published in [2023 - 2025]

Rank by Journal Impact Factor

Journals within a category are sorted in descending order by Journal Impact Factor (JIF) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Beginning in 2023, ranks are calculated by category. [Learn more](#)

CATEGORY

BIOLOGY

22/106

JCR YEAR	JIF RANK	JIF QUARTILE	JIF PERCENTILE	
2025	22/106	Q1	79.7	
2024	22/107	Q1	79.9	
2023	26/109	Q1	76.6	

Rank by JIF before 2023 for BIOLOGY

EDITION

Science Citation Index Expanded (SCIE)

JCR YEAR	JIF RANK	JIF QUARTILE	JIF PERCENTILE	
2022	34/92	Q2	63.6	
2021	39/94	Q2	59.04	
2020	27/93	Q2	71.51	
2019	26/92	Q2	73.52	

Rank by Journal Citation Indicator (JCI)

Journals within a category are sorted in descending order by Journal Citation Indicator (JCI) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Data for the most recent year is presented at the top of the list, with other years shown in reverse chronological order. [Learn more](#)

CATEGORY

BIOLOGY

30/106

JCR YEAR	JCI RANK	JCI QUARTILE	JCI PERCENTILE	
2025	30/106	Q2	72.17	
2024	33/107	Q2	69.63	
2023	40/109	Q2	63.76	
2022	47/112	Q2	58.48	
2021	54/113	Q2	52.65	
2020	41/113	Q2	64.16	
2019	46/111	Q2	59.01	

Citation network

Cited Half-life

2.9 years

The Cited Half-Life is the median age of the items in this journal that were cited in the JCR year. Half of a journal's cited items were published more recently than the cited half-life.

TOTAL NUMBER OF CITES

33,596

NON SELF-CITATIONS

32,842

SELF-CITATIONS

754

Cited Half-life Data

Citing Half-life

6.9 years

The Citing Half-Life is the median age of items in other publications cited by this journal in the JCR year.

TOTAL NUMBER OF CITES

123,257

NON SELF-CITATIONS

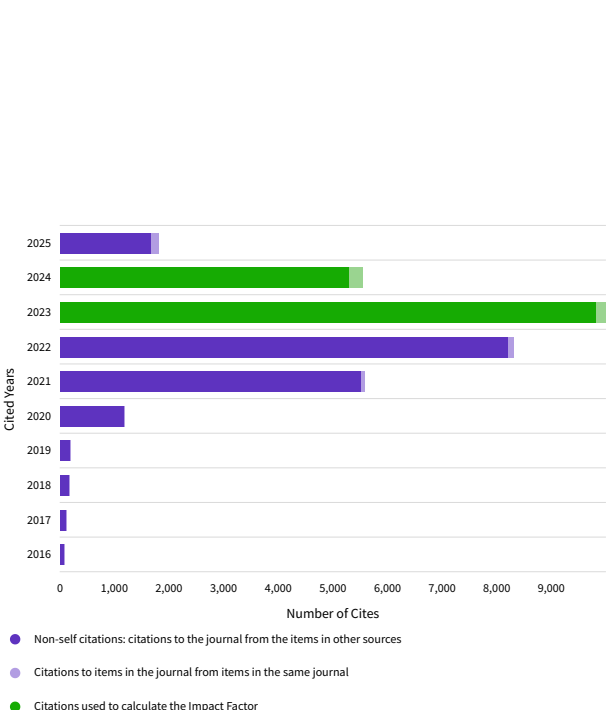
122,503

SELF-CITATIONS

754

Citing Half-life Data

[Export](#)



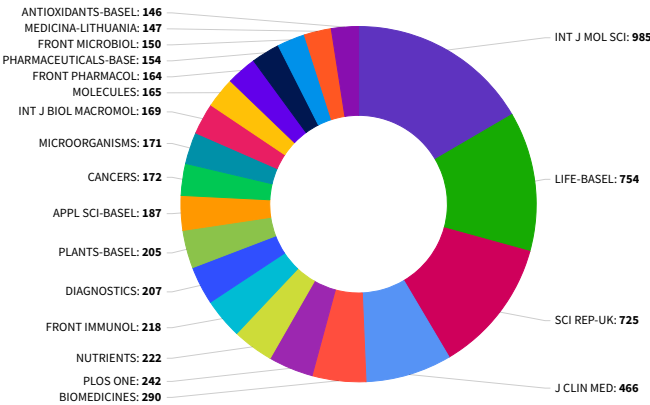
CITED YEAR	# OF CITES FROM 2025	CUMULATIVE %	# OF CITING SOURCES
All years	33,596 citations	100.00%	5,995 sources
2025	1,805 citations	5.37%	786 sources
2024	5,541 citations	21.87%	2,146 sources
2023	9,982 citations	51.58%	3,335 sources
2022	8,306 citations	76.30%	3,025 sources
2021	5,569 citations	92.88%	2,355 sources
2020	1,179 citations	96.39%	761 sources
2019	191 citations	96.95%	133 sources
2018	180 citations	97.49%	132 sources
2017	121 citations	97.85%	89 sources
2016	77 citations	98.08%	60 sources
Older	645 citations		

Journal Citation Relationships

Cited Data

Citing Data

Top 20 journals citing LIFE-BASEL by number of citations



Content metrics

Source data

This tile shows the breakdown of document types published by the journal. Citable Items are Articles and Reviews. For the purposes of calculating JIF, a JCR year considers the publications of that journal in the two prior years. [Learn more](#)

1,952 total citable items

	ARTICLES	REVIEWS	COMBINED(C)	OTHER DOCUMENT TYPES(O)	PERCENTAGE
NUMBER IN JCR YEAR 2025 (A)	1,441	511	1,952	55	97%
NUMBER OF REFERENCES (B)	70,494	52,124	122,618	639	99%
RATIO (B/A)	48.9	102.0	62.8	11.6	

Average JIF Percentile

[Export](#)

The Average Journal Impact Factor Percentile takes the sum of the JIF Percentile rank for each category under consideration, then calculates the average of those values. [Learn more](#)

ALL CATEGORIES AVERAGE	BIOLOGY
79.7	79.7

Contributions by organizations

[Export](#)

Organizations that have contributed the most papers to the journal in the most recent three-year period. [Learn more](#)

RANK	ORGANIZATION	COUNT
1	CAROL DAVILA UNIVERSITY OF MEDICINE & PHARMACY	192
2	GRIGORE T POPA UNIVERSITY OF MEDICINE & PHARMACY	117
3	RUSSIAN ACADEMY OF SCIENCES	109
4	VICTOR BABES UNIVERSITY OF MEDICINE & PHARMACY, TIMISOARA	105
5	NATIONAL & KAPORISTBIAN	97

Contributions by country/region

[Export](#)

Countries or Regions that have contributed the most papers to the journal in the most recent three-year period. [Learn more](#)

RANK	COUNTRY / REGION	COUNT
1	ITALY	829
2	USA	731
3	ROMANIA	636
4	CHINA MAINLAND	530
5	SPAIN	341
6	SOUTH KOREA	320
7	GERMANY (FED REP GER)	319
8	SAUDI ARABIA	267
9	POLAND	226

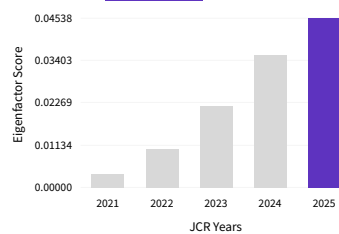
Additional metrics

Eigenfactor Score



0.04538

The Eigenfactor Score is a reflection of the density of the network of citations around the journal using 5 years of cited content as cited by the Current Year. It considers both the number of citations and the source of those citations, so that highly cited sources will influence the network more than less cited sources. The Eigenfactor calculation does not include journal self-citations. [Learn more](#)

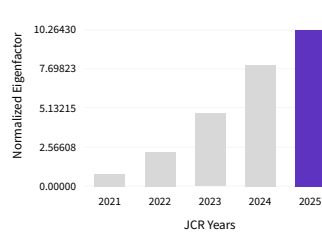


Normalized Eigenfactor



10.26430

The Normalized Eigenfactor Score is the Eigenfactor score normalized, by rescaling the total number of journals in the JCR each year, so that the average journal has a score of 1. Journals can then be compared and influence measured by their score relative to 1. [Learn more](#)

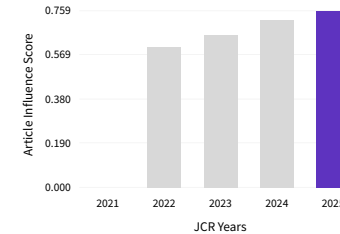


Article influence score



0.759

The Article Influence Score normalizes the Eigenfactor Score according to the cumulative size of the cited journal across the prior five years. The mean Article Influence Score for each article is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. [Learn more](#)



5 Year Impact Factor



3.9

[View Calculation](#)

The 5-year Impact Factor is the average number of times articles from the journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years. [Learn more](#)

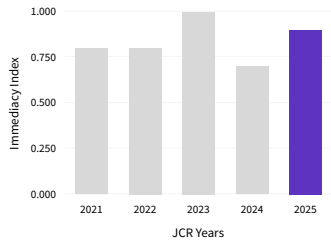
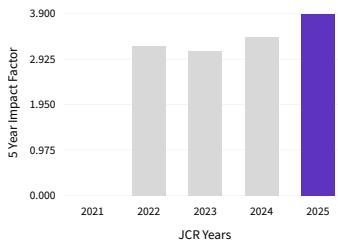
Immediacy Index



0.9

[View Calculation](#)

The Immediacy Index is the count of citations in the current year to the journal that reference content in this same year. Journals that have a consistently high Immediacy Index attract citations rapidly. [Learn more](#)



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