



Bibliometric evaluation of the Turkish Journal of Gastroenterology: A comprehensive analysis of quantitative publication dynamics

Türk Gastroenteroloji Dergisi'nin bibliyometrik analizi: Kantitatif yayın dinamiklerinin kapsamlı bir analizi

• Muhammed KAYA¹, • İbrahim DURAK¹, • Hüseyin KÖSEOĞLU¹,
• Tolga DÜZENLİ¹, • Mustafa KAYMAZLI², • Mesut SEZİKLİ³

Department of ¹Gastroenterology, Hitit University Faculty of Medicine, Çorum, Turkey

Department of ²Gastroenterology, Hitit University Çorum Erol Olçok Training and Research Hospital, Çorum, Turkey

Department of ³Gastroenterology, VM Medical Park Kocaeli Hospital, İzmit, Kocaeli, Turkey

ABSTRACT • Background and Aims: Turkish Journal of Gastroenterology is recognized as a prestigious international journal and stands as one of the leading publications in the field of gastroenterology, where researchers closely follow current articles. This research aims to provide a comprehensive perspective on the characteristics of publications in this journal from 2007 to 2023, utilizing bibliometric techniques. **Materials and Methods:** Articles from Turkish Journal of Gastroenterology, published between 2007 and 2023, were retrieved from the Web of Science database. Subsequent performance analyses were conducted on the same database, and network visualization maps were generated using the VOSviewer package program (Version 1.6.17, Leiden University's Center for Science and Technology Studies). **Results:** This research includes a total of 1537 articles, with the top three contributing countries being Türkiye, China, and South Korea, respectively. The most frequently addressed topics in publications are 'Ulcerative colitis' and 'Helicobacter pylori'. The reference lists of the 1537 articles collectively contain 35 406 citations and the articles received 9800 citations. The most cited institutions are Ankara University, Ege University, Istanbul University, Gazi University, and Hacettepe University. The most commonly used keywords are "Helicobacter pylori", "Ulcerative colitis", "Children", "Crohn's disease" and "Inflammatory bowel disease". **Conclusion:** By offering a holistic perspective on the features of articles published in the Turkish Journal of Gastroenterology, this research has the potential to make a meaningful contribution to the literature and establish a noteworthy impact on research within the field of gastroenterology.

Key words: Turkish Journal of Gastroenterology, bibliometric analysis, publications, citations

ÖZET • Giriş ve Amaç: Türk Gastroenteroloji Dergisi, uluslararası saygın bir dergi olarak kabul edilmekte ve araştırmacıların güncel makaleleri yakından takip ettiği, gastroenteroloji alanında önde gelen dergilerden biri olarak yer almaktadır. Bu araştırma, bibliyometrik teknikleri kullanarak bu dergide 2007'den 2023'e kadar yayınlanan yayınların özelliklerine kapsamlı bir bakış açısı sağlamayı amaçlamaktadır. **Gereç ve Yöntem:** Türk Gastroenteroloji Dergisinde 2007-2023 yılları arasında yayınlanan makaleler Web of Science veri tabanından alınmıştır. Aynı veri tabanı üzerinden performans analizleri yapıldıktan sonra VOSviewer paket programı (Version 1.6.17, Leiden University's Center for Science and Technology Studies) kullanılarak görsel ağ haritaları oluşturulmuştur. **Bulgular:** Çalışmamıza toplam 1537 yayın dahil edilmiş olup yayın sayısı bakımından ilk 3 ülke sırasıyla; Türkiye, Çin ve Güney Kore'dir. En sık ele alınan konular 'ülseratif kolit' ve 'Helicobacter pylori'dir. 1537 makalenin referans listelerinde toplam 35 406 referans bulunmaktadır ve makaleler toplam 9800 atıf almıştır. En çok atıf alan kurumlar sırasıyla; Ankara Üniversitesi, Ege Üniversitesi, İstanbul Üniversitesi, Gazi Üniversitesi ve Hacettepe Üniversitesi'dir. En sık kullanılan anahtar kelimeler sırasıyla; "Helicobacter pylori", "ülseratif kolit", "çocuklar", "Crohn hastalığı" ve "inflamatuvar bağırsak hastalığı"dır. **Sonuç:** Bu araştırma, Türk Gastroenteroloji Dergisinde yayınlanan makalelerin özelliklerine bütünsel bir bakış açısı sunarak literatüre anlamlı bir katkı sağlama ve gastroenteroloji alanındaki araştırmalara kayda değer bir etki oluşturma potansiyeline sahiptir.

Anahtar kelimeler: Türk Gastroenteroloji Dergisi, bibliyometrik analiz, yayınlar, atıflar

INTRODUCTION

In recent years, the field of gastroenterology has witnessed significant advancements in treatment, diagnosis, and follow-up practices, leading to a notable increase in clinical research (1,2). Numerous options are available for researchers to publish their studies, both nationally and internationally, with general medical journals and specialized gastroenterology journals being prominent choices. Among the reputable journals in Türkiye, Turkish Journal of Gastroenterology (TJG) stands out as a highly respected publication with international reach. Published by the Turkish Society of Gastroenterology, this peer-reviewed, open-access, online-only journal is issued monthly in English. TJG holds recognition in various abstracting and indexing databases, including Web of Science-Science Citation Index Expanded (SCI-E), Scopus, TUBITAK ULAKBIM TR Index, EMBASE, DOAJ, EBSCO, among others. Its mission is to disseminate studies of the utmost scientific and clinical significance, fostering high-quality research that contributes to the advancement of understanding and treatment in gastroenterology and hepatology. The journal encompasses a broad spectrum of topics within gastroenterology and hepatology, encompassing diagnostic methods, treatment modalities, and prevention strategies.

Examining the characteristics of publications from internationally respected scientific journals holistically holds great importance for providing scientific researchers with insights into their respective fields, contributing to research impact on critical issues (3). Various aspects such as the journal's influence on academic discourse, citation rates, publication frequency, collaborative authorship patterns, prolific institutions and countries, as well as emerging topics and future predictions, shed light on the direction of scientific advancements (4). In recent years, bibliometric analysis has emerged as

a powerful tool for effectively revealing these data, allowing a more concrete examination of the academic publication landscape on the global stage (5). For physicians navigating areas with insufficient data, bibliometric approaches have gained significance in offering quantitative evaluations, assessing research impact, and guiding contemporary literature investigations (6). Bibliometric analysis, as a research method, unveils publications by authors or institutions within a specific field and time frame, elucidating connections between these Works (7).

This study aims to employ bibliometric analysis methods to evaluate the Turkish Journal of Gastroenterology comprehensively, unveiling quantitative data pertaining to the journal's publications from a holistic perspective. By employing such methods, this analysis seeks to provide a nuanced understanding of the journal's impact and contributions within the broader academic landscape of gastroenterology.

MATERIALS and METHODS

We utilized the Web of Science Core Collection (Clarivate Analytics, Philadelphia, PA, USA) to identify publications from TJG to obtain quantitative data. The Web of Science Core Collection covers articles published from 1980 to 2024 and includes the Science Citation Index Expanded (SCIE) along with other citation indexes (8). On January 16, 2024, a search term "Turkish Journal of Gastroenterology" was queried in the Web of Science Core Collection Database using the 'Publication Titles' option. A total of 2411 publications in the TJG between 2007 and 2023 were identified, comprising 1537 articles, 573 letters, 177 editorial materials, 107 review articles, 55 proceeding papers, 11 corrections, 3 meeting notes, 2 retractions, 1 biographical item, and 1 retracted publication. For our study, we included 1537 articles, excluding other publication types. The research was con-

ducted using articles accessible through the Web of Science Core Collection Database, the data utilized in this study are publicly available and do not include any protected health information. Therefore, ethical approval was not required. Additionally, this study was conducted in accordance with the Helsinki Declaration of the World Medical Association.

The study involved a thorough examination of the numerical statistics of publications using performance analyses through Web of Science Core Collection. The Web of Science website allows for keyword-based searches within its indexed articles and journals, enabling the evaluation of results through analyses of authors, years, countries, publishing journals, subject headings, and citations. Following the extraction of numerical statistics, visual network maps of articles belong to TJG were generated using the VOSviewer package program (Version 1.6.17, Leiden University's Center for Science and Technology Studies) (9). The presentation included analyses of citations, co-citations, co-authorships, visual network maps for keyword analysis, and the characteristics and connections of the research. The user-friendly interface of the VOSviewer package program facilitates the visual mapping of bibliometric networks, utilizing text data downloaded from the Web of Science website to create visual maps, highlighting countries, journals, institutions, authors, or individual publications (9). VOSviewer is a software tool designed to visualize and construct bibliometric networks, which may encompass researchers, journals, or specific publications (9). These networks can be established based on relationships such as citation, co-citation, or co-authorship. VOSviewer also boasts text mining capabilities to generate and illustrate co-occurrence networks highlighting key terms extracted from scientific literature. Additionally, co-occurrence analysis, a bibliometric approach employed for mapping the research land-

scape, investigates potential connections between two terms found in the same publication. This method assesses the occurrence of pairs of items, such as keywords, in a document to reveal relationships between the terms presented in the text (9). It provides a means of mapping the structural landscape of a research field by examining jointly cited pairs of documents.

RESULTS

The reference lists of the 1537 articles included in our research contain a total of 35 406 citations. The 1537 articles published in TJG have received a total of 9800 citations, with an average of 6.38 citations per article. Upon excluding self-citations, the TJG journal received 9634 citations. The graph below (Figure 1) illustrates the publication and citation counts over the years.

The top 10 countries contributing the highest number of publications to the journal, in descending order, are as follows: Turkey (975), China (218), South Korea (59), Iran (51), USA (38), Japan (35), India (25), Egypt (23), Romania (14), and Germany (12). The list of the most productive affiliations in terms of the number of published articles is provided in Table 1. The citation counts of articles pertaining to our research have been examined, and the most cited publications along with their citation numbers are presented in Table 2. Table 3 provides the most frequently published research topics in the TJG, with the numbers of publications.

The top 10 institutions with the highest number of citations are, in order, Ankara University, Ege University, Istanbul University, Gazi University, Hacettepe University, Başkent University, Bezmialem Vakıf University, Akdeniz University, Çukurova University, and Uludağ University. The top 10 authors with the highest number of citations are, in order, Orhan Sezgin, Belkıs Ünsal, Erkan Parlak, Hakan Şentürk, Serhat Bor, Emrah Alper, Birol

Baysal, Orhan Kocaman, Engin Altıntaş, and Nurdan Tözün. In the co-authorship analysis, includ-

ing institutions with a minimum of 10 publications and 10 citations, the affiliations with the high-

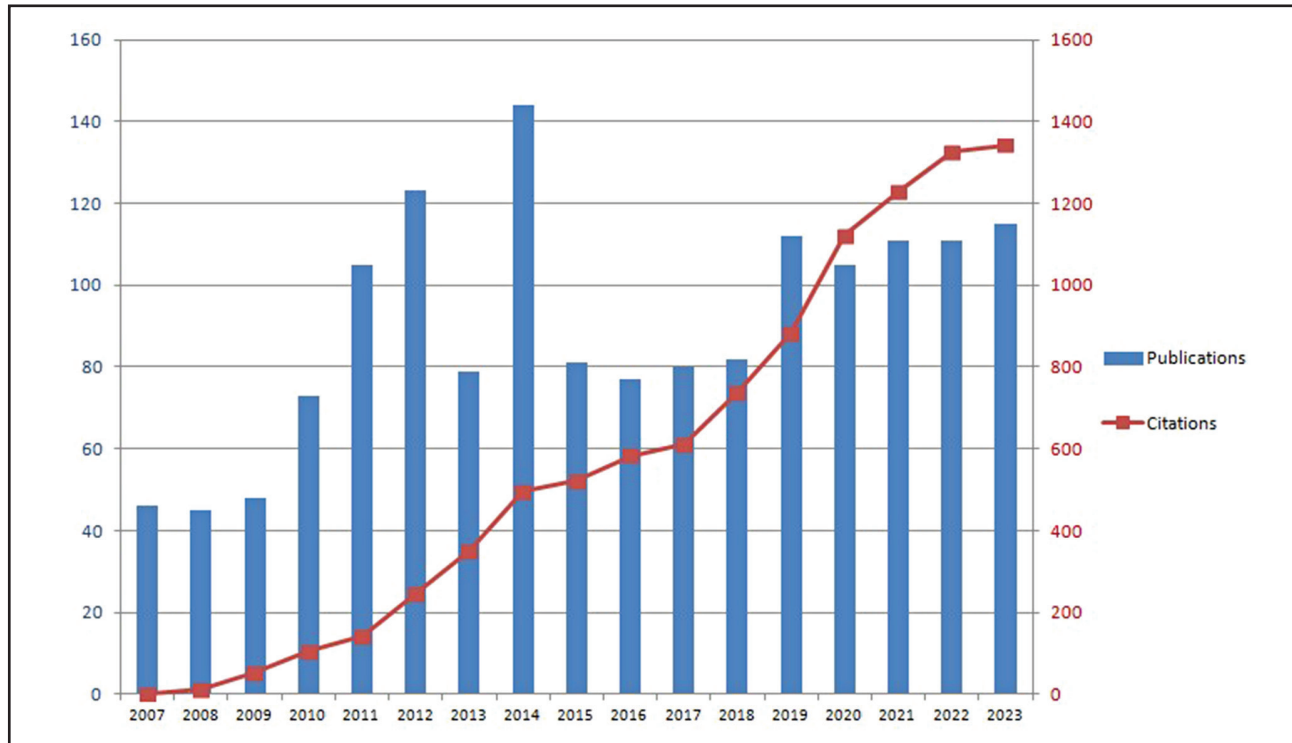


Figure 1 Distribution of publications and citations over the years

Table 1 Top 30 affiliations with the highest publication counts.

Affiliations	Counts	Affiliations	Counts	Affiliations	Counts
Ankara University	92	University of Health Sciences Turkey	46	Egyptian Knowledge Bank	23
Istanbul University	92	Bezmialem Vakıf University	45	Izmir Tepecik Training Research Hospital	23
Ege University	90	Akdeniz University	44	Uludağ University	23
Hacettepe University	66	Çukurova University	38	Ankara Numune Training Research Hospital	21
Turkey Specialized Higher Education Research Hospital	64	Mersin University	34	Dicle University	21
Istanbul University Cerrahpasa	61	İnönü University	29	Izmir Katip Çelebi University	21
Başkent University	60	Gülhane Military Medical Academy	28	Karadeniz Technical University	20
Gazi University	58	Izmir Atatürk Training Research Hospital	26	Kocaeli University	20
Marmara University	51	Gaziantep University	24	Selçuk University	19
Dokuz Eylül University	48	Acıbadem University	23	Atatürk University	18

est connectivity strength are Ankara University, Marmara University, Mersin University, Istanbul University, and Ege University. The collaborative authorship network map of institutions is provided below (Figure 2). Co-authorship analysis was conducted for authors who had a minimum of 10 pub-

lications and 10 citations. The authors exhibiting the highest connectivity strength in this analysis were Sabahattin Kaymaoğlu, Belkıs Ünsal, Filiz Akyüz, Erkan Parlak, and Hakan Şentürk, listed in order of prominence. The co-authorship cluster density map is provided in Figure 3.

Table 2 Top 20 most cited articles and citation counts.

No	Article Title / Publication Year	Authors List	Citations	Citation / Year
1	Effect of administering kefir on the changes in fecal microbiota and symptoms of inflammatory bowel disease: A randomized controlled trial / 2019	Yılmaz I, Dolar ME, Özpinar H.	88	17.6
2	The optimal treatment of hydatid cyst of the liver: Radical surgery with a significant reduced risk of recurrence / 2008	Aydin U, Yazici P, Onen Z, Ozsoy M, Zeytunlu M, Kiliç M, Coker A.	64	4
3	Association between type 2 diabetes mellitus and <i>Helicobacter pylori</i> infection / 2007	Bener A, Micallef R, Afifi M, Derbala M, Al-Mulla HM, Usmani MA.	64	3.76
4	Albumin-bilirubin score for predicting the in-hospital mortality of acute upper gastrointestinal bleeding in liver cirrhosis: A retrospective study / 2016	Zou D, Qi X, Zhu C, Ning Z, Hou F, Zhao J, Peng Y, Li J, Deng H, Guo X.	51	6.38
5	Seroprevalence of hepatitis B and C viruses in the province of Tokat in the Black Sea region of Turkey: A population-based study / 2009	Yildirim B, Barut S, Bulut Y, Yenişehirli G, Ozdemir M, Cetin I, Etikan I, Akbaş A, Atiş O, Ozyurt H, Sahin S.	49	3.27
6	Islamic fasting leads to an increased abundance of Akkermansia muciniphila and Bacteroides fragilis group: A preliminary study on intermittent fasting / 2019	Özkul C, Yalinay M, Karakan T.	45	9
7	Role of oxidative stress and insulin resistance in disease severity of non-alcoholic fatty liver disease / 2016	Köroğlu E, Canbakan B, Atay K, Hatemi I, Tuncer M, Dobrucalı A, Sonsuz A, Gültepe I, Şentürk H.	43	5.38
8	Efficacy of synbiotic, probiotic, and prebiotic treatments for irritable bowel syndrome in children: A randomized controlled trial / 2016	Baştürk A, Artan R, Yılmaz A.	40	5
9	Impact of psoas muscle index on short-term outcome after living donor liver transplantation / 2016	Izumi T, Watanabe J, Tohyama T, Takada Y.	39	4.88
10	Effects of preoperative and postoperative enteral nutrition on postoperative nutritional status and immune function of gastric cancer patients / 2015	Ding D, Feng Y, Song B, Gao S, Zhao J.	38	4.22
11	The protective effects of curcumin on intestine and remote organs against mesenteric ischemia/reperfusion injury / 2012	Onder A, Kapan M, Gümüş M, Yüksel H, Büyük A, Alp H, Başarılı MK, Fırat U.	38	3.17

Table 2 Top 20 most cited articles and citation counts.

No	Article Title / Publication Year	Authors List	Citations	Citation / Year
12	Effect of probiotics on small intestinal bacterial overgrowth in patients with gastric and colorectal cancer / 2016	Liang S, Xu L, Zhang D, Wu Z.	37	4.63
13	Capsule endoscopy examination identifies different leading causes of obscure gastrointestinal bleeding in patients of different ages / 2012	Zhang BL, Chen CX, Li YM.	37	3.08
14	Prognostic significance of MUC1, MUC2 and MUC5AC expressions in gastric carcinoma / 2010	Ilhan Ö, Han Ü, Önal B, Çelik SY.	37	2.64
15	Anti-colon cancer activity of Bifidobacterium metabolites on colon cancer cell line SW742 / 2019	Bahmani S, Azarpira N, Moazamian E.	36	7.2
16	Effects of synbiotic therapy in mild-to-moderately active ulcerative colitis: A randomized placebo-controlled study / 2019	Kamarlı Altun H, Akal Yıldız E, Akın M.	36	7.2
17	AST-platelet ratio index, Forns index and FIB-4 in the prediction of significant fibrosis and cirrhosis in patients with chronic hepatitis C / 2011	Güzelbulut F, Çetinkaya ZA, Sezikli M, Yaşar B, Ozkara S, Övünç AO.	36	2.77
18	The effect of grape seed extract on radiation-induced oxidative stress in the rat liver/ 2008	Cetin A, Kaynar L, Koçyiğit I, Hacıoğlu SK, Saraymen R, Oztürk A, Orhan O, Sağdıç O.	35	2.19
19	Impact of fatty liver on hepatitis B virus replication and virologic response to tenofovir and entecavir / 2016	Ceylan B, Arslan F, Batirel A, Fincancı M, Yardımcı C, Fersan E, Paşaoğlu E, Yılmaz M, Mert A.	33	4.13
20	Evaluation of the risk factors of pilonidal sinus: A single center experience/ 2012	Bolandparvaz S, Moghadam Dizaj P, Salahi R, Paydar S, Bananzadeh M, Abbasi HR, Eshraghian A.	33	2.75

Table 3 The Top 30 Citation Topics with the Highest Publication Counts (Citation Topics Micro).

Citation Topics	Counts	Citation Topics	Counts	Citation Topics	Counts
Ulcerative colitis	92	Hepatitis C virus	42	Primary biliary cirrhosis	14
<i>Helicobacter pylori</i>	71	Capsule endoscopy	40	Rectal cancer	13
Non alcoholic fatty liver disease	60	Celiac disease	37	Schistosomiasis	12
Acute pancreatitis	58	Pancreatic cancer	31	Esophageal cancer	12
Laparoscopic cholecystectomy	57	Gastric cancer	30	Coronavirus	11
Portal hypertension	55	Hepatocellular carcinoma	24	Metastatic colorectal cancer	11
Colonoscopy	53	Gastrointestinal stromal tumor	23	Bile acids	11
Gastroesophageal reflux disease	53	Neuroendocrine tumors	20	Acute mesenteric ischemia	11
Irritable bowel syndrome	52	Biliary atresia	18	Enteral nutrition	11
Hepatitis B virus	45	Microsatellite instability	16	Eosinophilic esophagitis	11

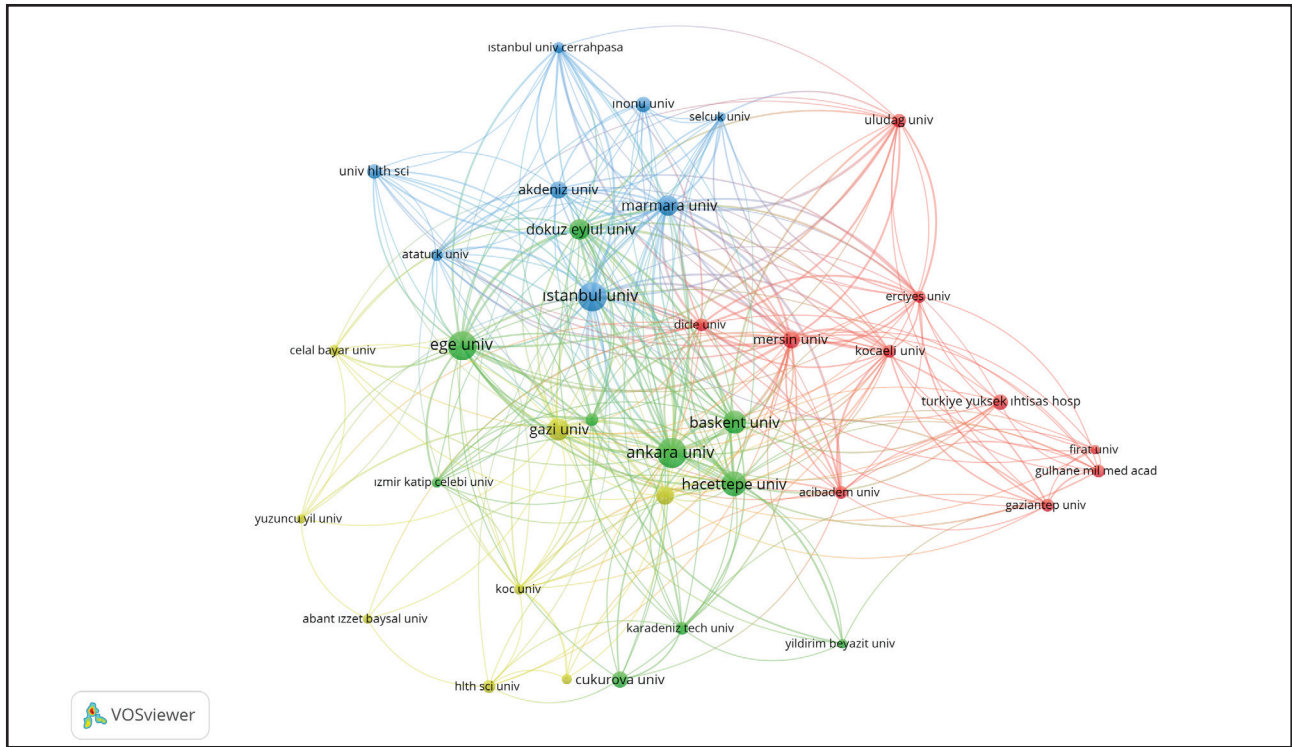


Figure 2 Co-authorship network analysis based on affiliation

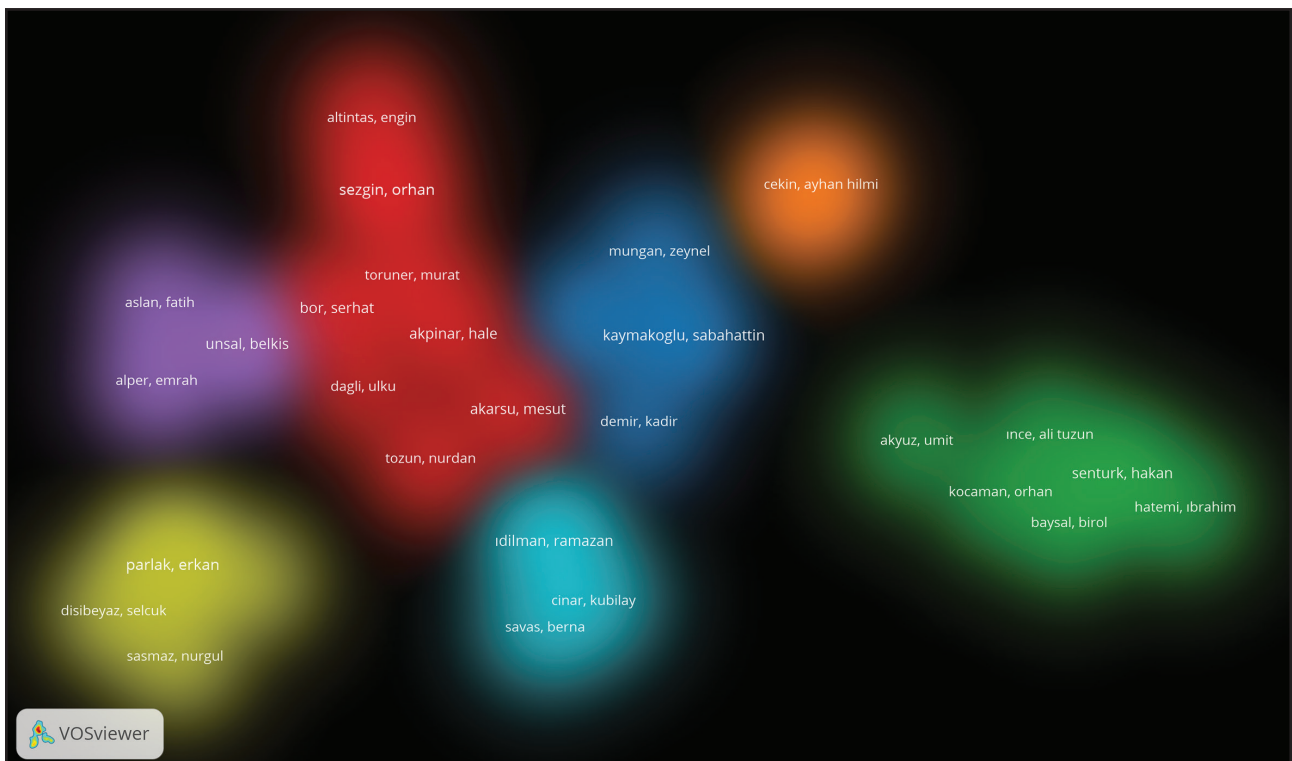


Figure 3 The co-authorship cluster density map

The keywords used at least 10 times were analyzed and the most frequently employed keywords were determined as follows: “*Helicobacter pylori*”, “ulcerative colitis”, “children”, “Crohn’s disease”, “inflammatory bowel disease”, “colorectal cancer”, “hepatocellular carcinoma”, “celiac disease”, “acute pancreatitis”, and “gastric cancer” (Figure 4). For journals with a minimum of 30 citations, co-citation analysis revealed that the most frequently cited journals are, in order, Gastroenterology, American Journal of Gastroenterology, Gut, Hepatology, and Gastrointestinal Endoscopy. The co-citation network map is provided below (Figure 5).

DISCUSSION

The comprehensive bibliometric analysis conducted on TJJG publications from 2007 to 2023 has yielded multifaceted insights, providing a nuanced un-

derstanding of the journal’s scholarly impact. The discussion herein aims to unravel the significance of the findings, delving into key themes, emerging trends, and potential implications for the broader field of gastroenterological research. The temporal evolution of TJJG publications, as illustrated in Figure 1, reflects not only a consistent upward trajectory in the number of articles but also a commendable scholarly impact, with an average citation per article standing at 6.38. This underscores TJJG’s enduring relevance and influence in disseminating impactful research within the gastroenterological domain. This may be related to the fact that it is one of the prestigious SCI-E journals in the field of gastroenterology in Türkiye.

One notable discovery in our study pertains to the low self-citation rates observed. This implies that the journal in question addresses topics of global

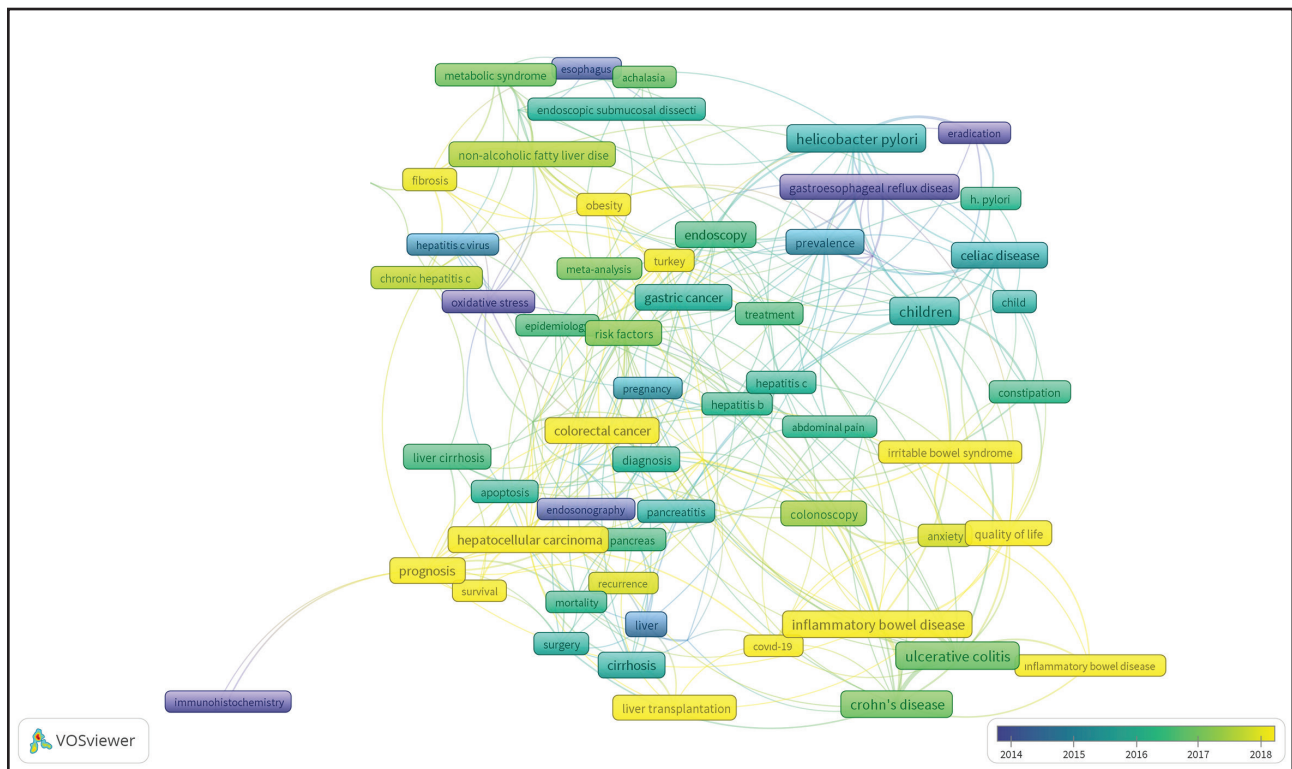


Figure 4 Keyword network analysis layer map

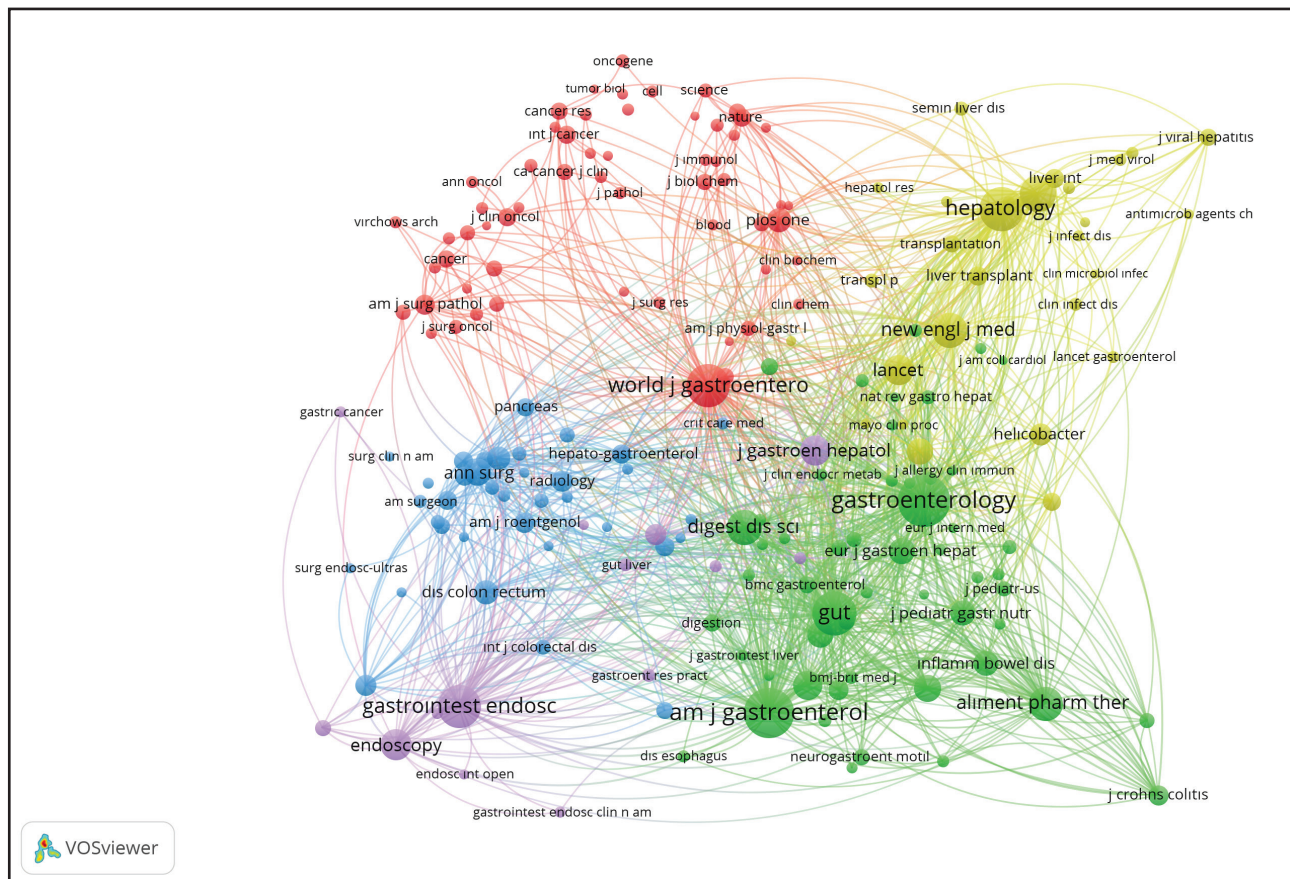


Figure 5 Co-citation network analysis by journals

significance, attracting citations from a diverse array of other journals. The minimal reliance on self-citations suggests a broad and international recognition of the journal's contributions within the scholarly community. The noteworthy prominence of Türkiye in its contributions to TJG publications stands out, underscoring the pivotal role of the journal in highlighting the nation's prowess in gastroenterological research. The collaborative networks, as revealed in co-authorship analyzes (refer to Figures 2 and 3), further emphasize the interconnectedness of academic institutions. When the current articles in this journal are examined, it is obvious that collaboration between institutions is quite common (10,11).

The exploration of top-cited articles, as illustrated in Table 2, sheds light on crucial research contributions that have attracted considerable scholarly attention. Remarkably, the extensive range of research topics, delineated in Table 3, underscores the comprehensive nature of TJG's publications. The journal covers a spectrum of subjects, extending beyond gastroenterology to encompass diverse areas such as ulcerative colitis and hepatocellular carcinoma. These findings emphasize the journal's profound impact and expansive influence, showcasing its pivotal role as a platform for disseminating knowledge across diverse domains within the medical and scientific community. Upon reviewing recent articles in the journal, it is notable that con-

siderable attention is given to globally significant topics like ulcerative colitis and hepatocellular carcinoma (12,13). This underscores the journal's dedication to addressing subjects that are widely discussed within the international medical and scientific discourse.

The identified top 10 institutions with the highest number of citations provide a comprehensive overview of the leading contributors to TJG publications. Ankara University's prominent position at the forefront suggests not only its prolific output but also its significant impact on the scholarly discourse in gastroenterology. Ege University, Istanbul University, and other esteemed institutions in the list underline the collaborative and diverse nature of research efforts within the field. Similarly, the ranking of authors by citation count reveals key figures who have made substantial contributions to the gastroenterological research landscape. The prolificacy of Orhan Sezgin, Belkıs Ünsal, Erkan Parlak, Hakan Şentürk, Serhat Bor, Emrah Alper, Birol Baysal, Orhan Kocaman, Engin Altıntaş, and Nurdan Tözün, along with other notable researchers, underscores the influence of their work in shaping the direction of scholarly conversations within the journal (14-18).

In the co-authorship analysis, institutions with a minimum of 10 publications and 10 citations provide valuable insights into the collaborative dynamics of the gastroenterological research community. The connectivity strength of Ankara University, Marmara University, Mersin University, Istanbul University, and Ege University suggests not only the productivity of these institutions but also the robust networks they have established, fostering knowledge exchange and collaboration. The co-authorship network map, as depicted in Figure 2, visually represents the intricate connections between these institutions, highlighting the rich tapestry of collaborative efforts within the TJG publications. This network underscores the

importance of interdisciplinary collaboration and the collective effort in advancing the understanding of gastroenterological phenomena.

The thematic focus of TJG publications, elucidated through keyword analysis as depicted in Figure 4, unveils recurring themes that hold significant importance in the field of gastroenterology. Notably, keywords such as "*Helicobacter pylori*", "ulcerative colitis", and "children" emerge prominently, reflecting the persistent attention and research emphasis on these specific topics. When worldwide research is examined, it is seen that these subjects have been and are still very popular in the clinical academic field (19-22). The prevalence of "*Helicobacter pylori*" as a recurring keyword indicates the sustained interest and ongoing investigation into the role of this bacterium in gastrointestinal health. It suggests a continued exploration of its implications, ranging from pathogenesis to potential therapeutic interventions, highlighting the dynamic nature of research within the TJG (23). The recurrent appearance of "ulcerative colitis" underscores the journal's commitment to covering inflammatory bowel diseases, with a specific focus on this condition. This keyword may signify ongoing efforts to understand the complexities of ulcerative colitis, exploring novel treatment modalities and advancements in patient care. The number of articles on this subject in TJG is considerable (24,25). The inclusion of "children" as a notable keyword reflects a dedication to pediatric gastroenterology within TJG publications. This emphasis on the unique aspects of gastrointestinal health in children suggests a recognition of the distinct challenges and considerations in this patient population, showcasing a holistic approach to gastroenterological research (26). Beyond these specific keywords, the broader thematic analysis provides insights into the evolving trends and priorities within the field of gastroenterology. The identification of recurrent themes not only highlights the

current focal points of research but also hints at potential future directions and areas of exploration within the journal. As the landscape of gastroenterology continues to evolve, these recurrent themes serve as guideposts, directing attention to crucial topics that shape the trajectory of scholarly inquiry and medical advancements. Identification of top-cited journals through co-citation analysis (Figure 5) unveils the key publications shaping the broader discourse in gastroenterology. Gastroenterology, American Journal of Gastroenterology, Gut, Hepatology, and Gastrointestinal Endoscopy emerge as central nodes, emphasizing their influence in the field.

The significance of these findings goes far beyond mere statistical insights, as they serve as a roadmap guiding future research endeavors in the dynamic field of gastroenterology. Beyond the numerical data, the identified gaps in research topics, potential collaborative avenues, and emerging trends offer researchers valuable cues for contributing to the evolving landscape of gastroenterological knowledge. The recognition of specific research topics such as “*Helicobacter pylori*”, “ulcerative colitis”, and “children” reflects the current state of inquiry and also points to areas that warrant further exploration. Researchers can leverage this information to delve deeper into these topics, uncovering nuances, and contributing novel perspectives that advance our understanding of gastroenterological phenomena.

The publication “Effect of administering kefir on the changes in fecal microbiota and symptoms of inflammatory bowel disease: A randomized controlled trial” takes precedence as the most cited work, underscoring the growing interest in the gut microbiome’s role in gastroenterology (27). The citation rate per year indicates a persistent relevance, suggesting an ongoing dialogue in the field regarding non-pharmacological interventions in inflammatory bowel disease. Additional works

such as “The optimal treatment of hydatid cyst of the liver: Radical surgery with a significant reduced risk of recurrence” and “Association between type 2 diabetes mellitus and *Helicobacter pylori* infection”, with 64 citations each, reflect the journal’s broad span covering parasitological surgical interventions and the intersection of gastrointestinal pathologies with systemic diseases (28,29).

The delineation of collaborative networks among institutions and authors opens up new possibilities for interdisciplinary research. By understanding the connectivity strengths between institutions, researchers can identify fertile ground for collaborative initiatives, fostering an exchange of ideas and methodologies that can lead to more comprehensive and impactful research outcomes. Moreover, the acknowledgment of emerging trends provides researchers with foresight into the trajectory of gastroenterological research. Staying attuned to these trends enables researchers to proactively engage with cutting-edge developments, positioning themselves at the forefront of scientific inquiry.

As a whole, these findings act as a compass for researchers, guiding them toward unexplored territories, encouraging collaboration, and aligning their efforts with the evolving landscape of gastroenterological knowledge. The holistic understanding derived from these insights facilitates the formulation of informed research strategies, ensuring that future investigations in gastroenterology are not only rigorous but also highly relevant to the ongoing needs and challenges within the field. Acknowledging the limitations of this analysis is crucial for contextualizing the findings. The reliance on quantitative metrics, exclusion of qualitative assessments, and potential biases in citation analyses necessitate a cautious interpretation of the results. The scope of our research has been structured to incorporate data exclusively from the Web of Science database. It’s important to acknowledge that the WoS was selected due to

its exhaustive collection of peer-reviewed publications and its widespread recognition for academic rigor. However, our examination is not comprehensive across all available academic databases as it does not extend to other repositories which are also rich in scholarly material, such as Scopus, PubMed, and Google Scholar. Scopus is known for its extensive coverage and bibliometric analysis tools, PubMed is a pivotal resource for life sciences and biomedical information, and Google Scholar offers a broad sweep of scholarly literature from various disciplines. The exclusion of such databases may limit the breadth of our analysis, potentially omitting relevant studies not indexed in WoS. Future research could benefit from incorporating these

resources to achieve a more holistic overview and to tap into a wider array of academic work, which could provide additional insights and strengthen the validity of the research findings.

In conclusion, the findings from this comprehensive bibliometric analysis underscore TJG's pivotal role in shaping the gastroenterological research landscape. The discussion has provided a detailed exploration of key themes, trends, and implications, paving the way for informed discourse and future research directions. TJG's enduring impact and influence in disseminating high-quality research within the gastroenterological community are evident, fostering a culture of collaboration and knowledge exchange.

REFERENCES

- Eskin F, Köseoğlu H, Düzenli T, et al. A new index for predicting malignant causes in patients with extrahepatic biliary obstruction: the hemoglobin, albumin, lymphocyte, and platelet (HALP) score. *Eur Rev Med Pharmacol Sci.* 2023;27(6):2514-21.
- Gök Sargın Z, Düşünceli İ, Çelik Ü. Effects of COVID-19 Pandemic and Post-Vaccination Period on Gastroenterology Practice in Turkey. *Turk J Gastroenterol.* 2023;34(1):13-8.
- Carey LB, Kumar S, Goyal K, Ali F. A Bibliometric Analysis of the Journal of Religion and Health: Sixty Years of Publication (1961-2021). *J Relig Health.* 2023;62(1):8-38.
- Yang LC, Liu FH, Liu CM, Yu CH, Chang YC. Bibliometric analysis of top-cited articles in Journal of Dental Sciences. *J Dent Sci.* 2023;18(1):338-44.
- Tutan D, Kaya AE. A scientometric analysis of the relationship between functional dyspepsia and anxiety. *J Health Sci Med.* 2023;6(4):805-14.
- Kaya AE. Global scientific outputs of psychiatric malpractice publications: A bibliometric approach from 1980 to 2022. *J Contemp Med* 2023;13(3):503-8.
- Karabulut A, Kaya M. Crohn's disease from past to present: Research trends and global outcomes with scientometric analysis during 1980 to 2022. *Medicine.* 2023;102(35):e34817.
- Vlase I, Lähdesmäki T. A bibliometric analysis of cultural heritage research in the humanities: The Web of Science as a tool of knowledge management. *Humanit Soc Sci Commun.* 2023;10(1):84.
- Van Eck N, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics.* 2010;84(2):523-38.
- Aba M, Sarıtaş AG, Yavuz B, et al. Preoperative Immunonutrition and Postoperative Outcomes in Radical Pancreaticoduodenectomy Patients. *Turk J Gastroenterol.* 2024;35(1):32-40.
- Celasin H, Törüner M, Aghayeva S, et al. Perception of COVID-19 Pandemic Among IBD Clinicians and IBD Surgeons in Black Sea Region: A Cross-Sectional Questionnaire Study. *Turk J Gastroenterol.* 2022;33(12):1004-11.
- Lin X, Zheng B, Gu F, Fan X, Shen J. Intestinal Epithelial Cell-Related Alternative Splicing Events in Dextran Sodium Sulfate-Induced Acute Colitis. *Turk J Gastroenterol.* 2023;34(5):490-6.
- Erdal H, Gül Utku Ö, Karatay E, et al. Combination of DKK1 and AFP improves diagnostic accuracy of hepatocellular carcinoma compared with either marker alone. *Turk J Gastroenterol.* 2016;27(4):375-81.
- Sezgin O, Altıntaş E, Tombak A. Effects of seasonal variations on acute upper gastrointestinal bleeding and its etiology. *Turk J Gastroenterol.* 2007;18(3):172-6.
- Soytürk M, Bengi G, Oğuz D, et al. Turkish Gastroenterology Association, Pancreas Study Group, Chronic Pancreatitis Committee Consensus Report. *The Turkish Journal of Gastroenterology.* 2020;31(Suppl 1):S1.
- Değertekin B, Tozun N, Demir F, et al. The Changing Prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) in Turkey in the Last Decade. *Turk J Gastroenterol.* 2021;32(3):302-12.

17. Attila T, Parlak E, Alper E, et al. Endoscopic papillectomy of benign ampullary lesions: Outcomes from a multicenter study. *Turk J Gastroenterol.* 2018;29(3):325-34.
18. Tozlu M, Kayar Y, İnce AT, Baysal B, Şentürk H. Low molecular weight heparin treatment of acute moderate and severe pancreatitis: A randomized, controlled, open-label study. *Turk J Gastroenterol.* 2019;30(1):81-7.
19. Gülcü Taşkın D. Evaluation of the Presence of *Helicobacter Pylori* in Inflammatory Bowel Disease in Children. *Med J Bakirkoy.* 2023;19:93-96.
20. Suman K, Ebru G, Kuşçu H, Turan H, Büyük M, Suman M. B12 deficiency and *Helicobacter Pylori* infections in Adolescents. *Phoenix Medical Journal.* 2023;5(2):83-86.
21. Gros B, Kaplan GG. Ulcerative colitis in adults: A review. *JAMA.* 2023;330(10):951-65.
22. Bouazizi A, Ben Hadj Fredj M, Bennour H, et al. Molecular analysis of adenovirus strains responsible for gastroenteritis in children, under five, in Tunisia. *Heliyon.* 2023;10(1):e22969.
23. Öztürk K, Kurt Ö, Çelebi G, et al. High-dose dual therapy is effective as first-line treatment for *Helicobacter pylori* infection. *Turk J Gastroenterol.* 2020;31(3):234-8.
24. Aydın MF, Taşdemir H. Ulcerative Colitis in a COVID-19 Patient: A Case Report. *Turk J Gastroenterol.* 2021;32(6):543-7.
25. Küçük İ, Özçelik F, Yazgan Y, et al. Can Serum Histone H4 Level Be a Biomarker in Ulcerative Colitis? *Turk J Gastroenterol.* 2024;35(1):4-10.
26. Gökçe S, Yıldırım M, Erdoğan D. A retrospective review of children with gallstone: Single-center experience from Central Anatolia. *Turk J Gastroenterol.* 2014;25(1):46-53.
27. Yılmaz İ, Dolar ME, Özpınar H. Effect of administering kefir on the changes in fecal microbiota and symptoms of inflammatory bowel disease: A randomized controlled trial. *Turk J Gastroenterol.* 2019;30(3):242-53.
28. Aydın U, Yazıcı P, Onen Z, et al. The optimal treatment of hydatid cyst of the liver: radical surgery with a significant reduced risk of recurrence. *Turk J Gastroenterol.* 2008;19(1):33-9.
29. Bener A, Micallef R, Afifi M, et al. Association between type 2 diabetes mellitus and *Helicobacter pylori* infection. *Turk J Gastroenterol.* 2007;18(4):225-9.