Abstracts of the International Society for Chronic Illnesses

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01. **PREVALENCE OF TB-IRIS AMONG HIV PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS**

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INTRODUCTION: There is approximately 18% incidence of immune reconstitution inflammatory syndrome among patients with HIV-associated TB. Tuberculosis immune reconstitution inflammatory syndrome (TB-IRIS) is an abnormal, excessive immune response against live or dead Mycobacteria tuberculosis that may occur in HIV infected patients. Considering this, we aim to find the prevalence of TB-IRIS among HIV patients worldwide. **METHODS**: RCT, cohort, cross-sectional, and case-control studies were included. Adult patients (> 13 years) who have HIV infection with active tuberculosis and who are on TB treatment and have then commenced ART were selected. Review articles, case series, case reports, and studies that reported less than five cases of TB-IRIS were excluded. PubMed, Science Direct, and Google Scholar were last used on October 17, 2021. The Joanna Briggs Institute Critical Appraisal Tools were used to assess the risk of bias. We reported a pooled prevalence of TB-IRIS among HIV patients. We had high heterogeneity, so we used a random effect model. To assess bias in studies, we used funnel plot and Egger test. R Studio 4.1.0 was used for data analysis. **RESULTS**: Out of a total of 14,010 HIV patients worldwide from 59 studies included in our meta-analysis, the overall pooled prevalence of TB-IRIS was estimated to be 13.82% (95% CI: 10.67-17.72) with a significant heterogeneity observed (I^2=96.5%, p<0.001). When stratified by continent, the highest pooled prevalence was observed in Europe (19.39; 95% CI: 11.86- 30.07) followed by Asia (17.96; 95% CI:11.66- 26.63), North America (14.61; 95% CI: 11.28- 18.72), Africa (10.37; 95% CI: 6.72- 15.65), and South America (5.46; 95% CI:3.62-8.15). Significant heterogeneity was observed on all continents except for North America. When stratified by year of publication, the pooled prevalence was higher in studies published between 2011-2021 (15.93%; 95% CI: 11.38-21.85) compared to studies published between 2000-2010 (10.38%; 95% CI: 7.42-14.35). Significant heterogeneity was observed in both time periods. **CONCLUSION**: Overall, this meta-analysis suggests that the prevalence of the condition varies across different continents and over time, with the highest prevalence observed in Asia and Europe. However, the significant heterogeneity observed in all subgroups indicates that caution should be taken when interpreting these results.

Key Words: TB-IRIS prevalence; HIV-associated tuberculosis; Global HIV patients; Immune reconstitution syndrome; Meta-analysis HIV TB-IRIS.

02. **EFFICACY OF CANNABINOID IN DRAVET SYNDROME**

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INTRODUCTION: Dravet syndrome is a rare epileptic encephalopathy that begins in the first year of life in infants who had previously experienced typical development.1 in 17,000 is the estimated prevalence, though this number may be understated in the absence of sizable epidemiological studies. Recent studies, such as those done by Porter Brenda et al. have shown that CBD present in cannabis sativa is helpful in managing refractory cases of Dravet syndrome. Our review aims to summarize these studies that have been done in order to gain a wider perspective about the use of cannabis in Dravet syndrome. **METHODS**: The information sources used to perform literature search in this review are PubMed, Google Scholar, Doaj and Sciencedirect for all papers published till September 2022. In this study, we included randomized clinical trials, cohort studies, case-control studies, or cross-sectional studies, that were published in peer-reviewed journals within the last 10 years in English language, that adhered to the PICO of this review article. We excluded editorials, commentaries, systematic reviews, meta-analyses, and narrative reviews. The risk of bias was analyzed using the Newcastle-Ottawa scale for observational studies and the RoB 2 scale by cochrane for randomized trials. categorically with the help of X2 test and binary data with the help of relative risk and both with confidence intervals of 95%. **RESULTS**: A total of 15 studies (9 clinical trials and 6 observational studies) published between 2013 and 2021 were selected for this review with 1959 Dravet Syndrome patients with a mean age of 11.18 years (range: 6.07 to 27.5 years), 937(47.83%) females from USA, UK, Korea, Denmark, Spain, Canada, Australia. Patients were given cannabidiol preparations for medication duration ranging from 2 to 156 weeks and doses ranging from 0.5-10 mg/kg/day for starting dose to 2.8-50 mg/kg/day as the maximum safety limit. At the end of the study period, 440 (22.5%) patients experienced a reduction in seizure frequency and 45 (2.3%) patients became seizure-free. Improvement in alertness, sleep quality, alertness, anxiety was reported by 3 studies out of which one study reported an improvement in overall quality of life however, it was not statistically significant. Several cases of adverse drug events were recorded with the highest being infections (641 cumulative episodes) like upper respiratory tract infections ,pneumonia, flu, ear infections, urinary tract infections, and pyrexia followed by GIT problems (562 cumulative episodes) like gastroenteritis, abdominal pain, constipation, appetite changes, and vomiting. Patients also experienced somnolence and fatigue (94 cumulative episodes), sleep disturbances(18 cumulative episodes), increased seizure and psychomotor activity(199 cumulative episodes), elevated liver enzymes, and ataxia. **CONCLUSION**: After a review of studies on Dravet syndrome patients, the cannabidiol preparation used as medications showed reduction in seizure frequency in some patients' with a small number of individuals experiencing seizure freedom. Despite cannabidiol's effectiveness, more than half of them had mild adverse effects. In order to fully understand the effectiveness of cannabidiol preparations, more placebo-controlled clinical trials are needed.

Key Words: Dravet syndrome; Cannabidiol (CBD) treatment; Seizure frequency reduction; Efficacy of cannabinoids; Adverse effects of CBD.

03. **THE POTENTIAL IMPACT OF THE COVID-19 PANDEMIC ON CHILD DEVELOPMENT: A SYSTEMATIC REVIEW**

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OBJECTIVE: This was a systematic review that examined the impact of COVID-19 Pandemic on child development. **INTRODUCTION**: COVID-19 led to the sudden implementation of social distancing norms worldwide, including school closures. This stress scenario could possibly alter physical activity and sleep, essential for general development which are shown to have a profound impact on brain plasticity. These stressors can eventually affect cognitive and emotional development. The Anganwadi Services Scheme and childhood vaccine delivery system was also disrupted during the course of pandemic. Prenatal stress due to a range of reasons is also suggested to affect foetal development. **RATIONALE FOR THE STUDY**: There is very limited data present of the impact of COVID-19 Pandemic on Child Development. This review of the scientific literature was undertaken in light of the above. This information will be relevant in developing strategies to help children cope with epidemic/ pandemic-driven adversity and ensure their healthy development. **METHODS**: The PubMed, Europe PMC, Google Scholar and Science Direct database was searched between July 1st 2022 and September 20th 2022. The inclusion criteria was a) articles in English, b) Articles with study population as children and the exclusion criteria was a) Articles whose full text couldn't be obtained, b) journals not accessible online. Studies were thoroughly assessed. Out of 2371 records, 7 papers were included in the review. **RESULTS**: After thorough analysis of the literature available, a total of 7 studies were included in this as shown below. Discussion: Among the 4.4 million COVID-19 deaths reported in the MPIDR COVerAGE database, 0.4 percent occurred in children and adolescents under 20 years of age, out of which 47 per cent were among children ages 0–9. The healthcare system changed its focus to the COVID-19 pandemic, which led to an increase in other childhood illnesses and outbreaks. Expectant mothers were reluctant to attend clinics and were delayed in seeking treatment. Moreover, in cases of maternal SARS-CoV-2 infection, forced separation of mothers and infants for up to 14 days has been reported. Maternal stress is thought to affect early structures of the developing limbic system. Due to the protracted lockdown's impact on the economy, food shortages and an increase in food prices resulted in children not receiving the required nutrients. Without prompt action, there were 14.3% more wasted children during the first year of the epidemic, which resulted in an additional 10,000 child fatalities each month. Before being confined to the home, toddlers between the ages of 2-3 had more opportunity to advance their motor development at a more complex level while acquiring more communication structures. A standardised MC test demonstrated the lockdown's detrimental effects on kids' MC in a way that can be scientifically measured.

Key Words: SARS-CoV-2; CoV2; COVID-19; Pandemic; Child Development; Adolescents.

04. **CAN BidSi6 AND BidEL ISOFORMS PREDICT PRECANCEROUS COLORECTAL POLYPS? - A LITERATURE REVIEW**

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INTRODUCTION: Colorectal carcinoma is the third most common malignancy worldwide. It leads to approximately 1 million deaths in a year, making it the second most common cause of death due to cancer. The diffuse and non-specific nature of the symptoms of CRC often causes delays in diagnosis. Therefore, biomarker detection can aid in identifying pre-cancerous lesions and give better insight into the prognosis of the disease. One such biomarker of interest is the Bcl-2 family proteins which are associated with apoptosis of cells. This review intends to identify the role of BidSi6 and BidEL proteins in the early detection of polyps usually in the preclinical stage, the prognosis of CRC and variations on the basis of age, gender and tumor location. **METHODS**: A comprehensive literature search was conducted using the following electronic databases: PubMed, Google Scholar, Cochrane Library, Science Direct, and Directory of Open Access Journals (DOAJ). Our search included papers published from the inception of the databases up to the current year. The search was limited to randomized control trials, observational studies - cohort, case-control, and cross-sectional studies, published in the English language in peer-reviewed journals. Editorials, conference abstracts, case reports and series, and experience pieces were excluded. Paper selection through title and abstract screening and full-text screening was performed blindly by two reviewers and in case of discrepancy, a third reviewer made the final decision. **RESULTS:** Out of 1004 studies collected from Pubmed, Science Direct, Google Scholar, and Doaj, 91 studies were included after the title and abstract review followed by a full-text review. Due to the heterogeneity of included studies in terms of design, patient characteristics, and assay met hods used, a narrative synthesis of the findings was performed. Bid, a proapoptotic member of the Bcl-2 family, acts as an agonist for Bak and Bax proteins promoting cell death. Alternative splicing of the Bid protein produces various isoforms such as BidS, BidEL, and BidES and each has separate functions. BidSi6 and BidEL are two biomarkers highly upregulated in adenomatous polyps as compared to the surrounding tissue. Descending colon has the highest expression of BidSi6 whereas the transverse colon has the highest expression of BidEL isoform. Male CRC patients have increased expression of BidEL as compared to female patients. Studies indicate that higher levels of Bid increase susceptibility to apoptosis-inducing ribonucleotide reductase-inhibiting medications thus aiding in the treatment. **CONCLUSION**: The expression of the BidSi6 and BidEL isoforms is higher in adenomatous polyps and the surrounding non-polyp tissues than in normal colon tissue, suggesting a relationship between the expression of these isoforms and polyp formation. Further clinical studies can be done to understand the efficacy and acceptance of this screening method and the use of Bidsi6 and BidEL as a novel way for the diagnosis and prognosis of Colorectal Cancer.

Keywords: BidSi6; BidEL; Precancerous colorectal polyps; Bcl-2 family proteins; Colorectal cancer prognosis.

05. **ESTIMATING CHILDREN'S WEIGHT AND COMPARISON OF PEDIATRIC WEIGHT ESTIMATION METHODS IN AN INDIAN TERTIARY HOSPITAL**

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INTRODUCTION: Managing pediatric emergencies is a challenging task as parameters like drug doses and equipment sizes are based on body weight. Inaccurate estimation of weight can lead to increased adverse drug reactions or non-responsiveness. However, measuring weight in emergency situations is not always feasible, especially in low and middle-income countries where weighing scales may be unavailable. Age-based formulae are available to estimate weight rapidly, but these have been created and validated using data from high-income countries, leaving a gap in formulae for low- and middle-income countries. This study aims to create and validate similar formulae for these countries to improve the accuracy of pediatric weight estimation in emergency situations. **OBJECTIVE**: To identify the most accurate pediatric weight estimation method for the Indian population and provide recommendations for similar populations based on the findings. **METHODS**: Over two months, we conducted a cross-sectional study at a tertiary hospital in India, enrolling children aged 1-18 years with parental consent. Exclusions included children requiring immediate resuscitation, with conditions affecting their weight, or on medications affecting weight, and those with limb deformities. Participants were recruited from hospital visits, and data on age, gender, delivery mode, congenital diseases, nutritional deficiency, height, weight, and body habitus were collected using specific measuring devices. A total of 75 observations were studied for Bland-Altman analysis to calculate sample size for a multiple regression study, with target data on age, sex, height, weight, and body habitus. **RESULTS**: There is a notable disparity between the weight determined by the pawper scale and the actual weight. When the body habitus is higher on the pawper scale, there is a stronger correlation with the actual age because of the higher value. This results in an increase in the magnitude of the correlation. We found that gender has no significant effect on the relationship but age and height affected the relationship between the pawper scale and actual weight because the p-value is less than 5 and we took a level of confidence of 95%. If we took a 99% confidence interval then the level of significance is 0.001. Discussion: Our study findings indicate that the pawper scale is incapable of accurately evaluating the real weight of the individuals involved. Although previous studies have compared various methods for estimating weight, none have specifically developed a formula for the Indian pediatric population. Therefore, there is a necessity to develop such a formula in order to enhance clinical compliance. **CONCLUSION**: Accurate pediatric weight estimation is crucial for emergency situations, but not always feasible, especially in low and middle-income countries. This study aimed to identify the most accurate method for pediatric weight estimation in the Indian population. The pawper scale was found to be inadequate. Developing age-based formulae could provide recommendations for similar populations in low and middle-income countries.

Keywords: Pediatric weight estimation; Pediatric emergency weight; Weight estimation methods; Low and middle-income countries; Pawper scale accuracy.

06. **EFFICACY AND SAFETY OF ADAVOSERTIB IN PLATINUM-RESISTANT OR RECURRENT OVARIAN CANCER**

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INTRODUCTION: Ovarian cancer is the second leading cause of mortality in women with gynecological malignancies. The annual incidence of ovarian cancer is approximately 240,000 and the annual mortality is 152,000 [1]. Most advanced ovarian cancers tend to become resistant and the overall prognosis of this patient population remains poor. There is an urgent need for effective therapies for patients with platinum-resistant ovarian carcinomas. Evidence for appropriate and efficacious treatment for platinum-resistant and recurrent ovarian carcinoma is still lacking. Adavosertib is an inhibitor of the tyrosine kinase WEE1, hindering it from phosphorylating CDK1. Trials are underway to determine the efficacy of Adavosertib in patients with platinum-resistant ovarian cancer, and till now it is showing promising anti-tumor efficacy. It has improved progression-free and overall survival in platinum-resistant and recurrent ovarian cancer. In this article, we will discuss a systematic review and meta-analysis of the efficacy and safety profile of Adavosertib in platinum-resistant or recurrent ovarian cancers. **METHODS**: PICO for the research question was defined before beginning the review. Participants with any type of ovarian cancer diagnosed by histopathology and resistant to first-line therapy were included. Recurrent ovarian cancer after first-line treatment completion or resistant cancers were being trialed with multiple alternative drug therapies, Adavosertib being one of them. Reviewers conducted a literature search on PubMed, Google Scholar, Scopus, HINARI, and ScienceDirect databases for papers published from any date to 22 August 2022. Randomized control trials, non-randomized control trials, cohort studies, and case-control studies were included and articles not in English language were excluded. Risk of bias (quality) assessment was done using the ROBINS I tool for randomized control trials and the Newcastle Ottawa scale for cohort studies. Descriptive and summary statistics were used to describe the study cohort's socio-demographic parameters and adverse effects of Adavosertib. Meta-analysis using a random-effects model was used to assess the association of Adavosertib with the overall median survival of patients. **RESULTS**: In the meta-analysis using a random-effects model, the pooled estimate for the overall survival of patients given Adavosertib is 14.71 months (95% CI: 9.01 to 20.41 months). The estimate is statistically significant ($p < 0.0001$), indicating a positive effect of Adavosertib on overall survival. The amount of total heterogeneity (variability between studies) is estimated to be 18.97 (SE = 26.19), with a corresponding tau value (square root of tau^2) of 4.35. The I^2 statistic, which represents the proportion of total variability due to heterogeneity, is 77.36%. This indicates a high level of heterogeneity among the studies. The most common adverse effect noted was nausea (69.3%) followed by anemia (60.3%), diarrhea (56.8%), thrombocytopenia (55.0%), neutropenia (54%), vomiting (52.7%), lymphopenia (35.6%), hypomagnesemia (9.0%), and hypokalemia (5.4%). **CONCLUSION**: The meta-analysis suggests that Adavosertib significantly affects overall survival in ovarian cancer patients, with an estimated pooled median survival of 14.71 months. However, the results should be interpreted with caution due to the high heterogeneity observed among the studies. The top three most common adverse effects were nausea, anemia, and diarrhea. Only three studies were included in the meta-analysis. Reviewers recommend that large studies should be done to give us more information about this topic.

Keywords: Adavosertib efficacy; Platinum-resistant ovarian cancer; Recurrent ovarian carcinoma treatment; Tyrosine kinase WEE1; Tyrosine kinase inhibitor Adavosertib.

07. **CLINICAL OUTCOME OF ESTABLISHED AND PROMISING TREATMENT MODALITIES OF MONKEYPOX- A SYSTEMATIC REVIEW**

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INTRODUCTION: Monkeypox emerged as a public health concern in the year 2022 with sporadic cases being reported from all over the world. However, significant overlap has been demonstrated in clinical presentation with other poxviruses including atypical features and the effect of concomitant co-morbidities and therapy. The current systematic review aims to assess the association between antiviral medication and a good outcome in monkeypox patients. Secondary aims of the review are to compare Tecovirimat with other antivirals and assess the influence of demographic and clinical factors on the effect of antivirals on outcome. **METHODS**: The study protocol was registered in PROSPERO successfully and can be found on https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=357629. A comprehensive literature search was done on PubMed, Google scholar, DOAJ, and sciencedirect databases supplemented by citation searching to select case reports and case series of lab confirmed human monkeypox infection published in English full-length peer-reviewed journals elucidating the clinical outcomes of both the disease and the management strategies, regardless of demographics and comorbid status. Articles lacking focus on natural human monkeypox infection or demonstrating non-clinical interventions were excluded. Data collection and analysis was completed on Microsoft Excel using 95% confidence interval and relevant statistical tests.The critical checklist for appraisal of case reports and case series put forward by the JBI global was adopted to assess the quality of the included studies. **RESULTS**: Out of the 31 selected case reports and series, our review consists of a total of 58 patients infected with Monkeypox with a mean age of 29.54 years (range: 1.25 to 44 years), 46(79.31%) males, 5(8.62%) females, 7(12.07%) missing gender data. Antiviral treatment was estimated to be significantly associated with a good outcome in monkeypox patients (Pearson Chi2 = 6.383; p value = 0.012). Out of the 13 participants who had a bad outcome, no patient received antiviral medication while 35.56% of patients with a good outcome received at least one antiviral medication. The use of Tecovirimat as compared to other antiviral medications like acyclovir, valacyclovir, and cidofovir was significantly associated with a good outcome (Pearson Chi2 = 6.383; p value = 0.041) however it did not show a significant association when compared between a good and a very good outcome (Pearson Chi2 = 1.197; p value = 0.550). On adjusting for demographic and clinical factors, antivirals were shown to have a positive association with a good outcome; however, this relation was not significant (Maximum likelihood estimation logistic regression coefficient = 19.34; p-value = 0.995) . **CONCLUSION**: Using antiviral medications in monkeypox patients is related to a good outcome out of which Tecovirimat is shown to be more strongly associated with better outcomes. On adjusting for age, gender, immune status, HIV medications, and smallpox vaccination antivirals were associated with a good disease outcome although this association was not significant.

Keywords: Monkeypox; Antiviral treatment; Tecovirimat; Clinical outcomes; Systematic review.

08. **SYSTEMATIC REVIEW ON MEDICATION EVENT REMINDER MONITORS IN TB PATIENTS**

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INTRODUCTION: With over 10 million people getting sick and 1.6 million people dying from TB each year, tuberculosis (TB) continues to be a major factor in the mortality brought on by a single infectious disease globally. The extended duration and intricacy of tuberculosis treatment led to inadequate compliance with medication, unfavourable treatment results, and drug resistance. 99-DOTS is a low-cost initiative that was brought in order to monitor patients who are coinfected with TB and HIV and their adherence to treatment. It is a mobile phone-based technology which enables remote and real-time monitoring of daily and regular medication intake. 99DOTS has been an affordable approach for enhancing TB drug adherence, which will increase compliance with anti-TB treatment. This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement for the reporting of systematic reviews and primary outcome measured is Medication adherence (including treatment completion rate, adherence rate) on the other hand secondary outcomes were clinical outcome (cure rate), patient and healthcare provider (HCP) satisfaction. **METHODS**: we have registered this on PROSPERO on 16 April 2023. PubMed, ScienceDirect, DOAJ, Embase, and Web of Science medical databases searched from inception till 16 Feb 2023 and study inclusion criteria-Cross-sectional, cohort, and case-control observational studies, Randomized and non-randomized clinical trials, both blinded and open-label Qualitative studies; Cochrane bias assessment tool used for randomized control trials. The Newcastle Ottawa tool used for observational studies. **RESULTS**: Study selection process - 8 studies in the end - 3 clinical trials, 4 prospective studies, 1 crosssectional; 76,811 participants; 24291 (31.62%) females; age (44.63), No formal education or low literacy- 348, Some primary or secondary education/able to read local language-3725, Unemployed/ Student/housewife/others-13748. 3 ROB2 RCTs - 5 New Castle Ottawa (3 cohort,2CS) - Studies have shown that MERM can improve patient adherence to medication. In Xiaqui 2015, the combined arm had the lowest percentage of poor adherence (13.9%), while the control arm had the highest (29.9%). Bionghi 2018 found that MERM was more sensitive in detecting missed doses than seven-day recall. Wang 2019 showed that patients had a high average percentage of doses taken (99.3%). MERM was also found to be effective in Manyazewal 2022, with comparable adherence rates to directly observed therapy (DOT). The use of MERM in patient treatment was found to be associated with better treatment outcomes in several studies. Patients who adhered to treatment had higher sputum culture conversion rates, and the MERM arm had significantly higher treatment success rates compared to the DOT arm. Additionally, increasing MERM coverage was associated with higher treatment success rates. However, loss to follow-up and treatment failure were still reported in some cases. Residence can influence the effect of MERM on adherence, with rural areas showing more reduction in poor adherence. In Peru, participants from certain districts were more likely to miss doses. TB diagnosis method and HIV status can also affect adherence rates, with bacteriologically confirmed cases showing lower treatment success rates and undetectable HIV viral load associated with higher adherence rates. Disability and old TB diagnosis were also found to negatively impact adherence rates. **CONCLUSION**: As a result, the Medication Event Reminder Monitor (MERM) has proven to be successful in boosting patient adherence and treatment success rates. The method of follow-up, however, requires refinement because a sizeable portion of participants were lost to follow-up, which led to treatment cessation. Because the text messaging group lost patients at considerably lower rates than the control group. Future research might concentrate on enhancing the follow-up procedure to make sure that patients get enough support throughout their treatment course.

Key Words: MERM (medication event monitoring systems); Directly observed therapy (DOT); 99DOTS; TB; HIV.

09. **PROTON PUMP INHIBITORS FOR GLOBUS HYSTERICUS: A SYSTEMATIC REVIEW**

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INTRODUCTION: Globus hystericus is often described as the persistent or intermittent non- painful sensation of a lump or foreign body in the throat. Its presentation is fairly common in both men and women with a lifetime prevalence of 21.5 percent. The symptom is prominent in laryngopharyngeal reflux (LPR) or atypical gastroesophageal reflux disease (GERD). Due to the uncertain etiology of globus, it remains difficult to establish standard treatment strategies for affected patients. However, the role of proton pump inhibitors has shown improvement in symptoms. Various studies have shown both positive and negative correlations between globus hystericus and proton pump inhibitors. Therefore, the aim of our research is to systematically review the published literature regarding the efficacy of proton pump inhibitors in globus sensation. **METHODS**: A total of nine databases, including PubMed, Google Scholar, Springer Link, Wiley, Cochrane Library, ScienceDirect, Taylor and Francis, Ovid, and DOAJ, were thoroughly screened for the collection and retrieval of relevant articles from inception until May 2022. The screening process used keywords such as Globus Hystericus, Globus Sensation, Globus Pharyngeus, Sensation, Globus, and Proton Pump Inhibitor. The inclusion criteria consisted of accessible cohort, case-control, cross-sectional, and interventional studies available in the English language with an intervention of proton pump inhibitors. The studies had adult patients diagnosed with Globus Hystericus, monitoring the primary outcome of symptom improvement in patients with laryngopharyngeal reflux under proton pump inhibitor therapy. All reviews, meta-analysis, case reports, case series were excluded. The ROB2 tool was used for the quality assessment of clinical trials and data synthesis, while the Newcastle Ottawa tool was used for observational studies. Qualitative data synthesis was performed using meta-aggregation. **RESULTS**: A total of 2076 articles were screened and 15 papers were selected to be included in our systematic review published between 2001 to 2020. The review consisted of 1046 LPR patients with a mean age of 49.6 ± 5.49 years, 55.63% females, mean BMI of 23.69 ± 0.55 kg/m2, 22.42% smokers, 39.95% alcohol addicts, and 72.14% patients with a history of GERD. Out of the 15 studies, 13 have been described qualitatively and a quantitative analysis was done on 3 studies using R software (4.3.0). Random-effects meta-analysis of 3 studies found that the estimated odds ratio (OR) for the overall effect was 0.56 (95% CI: -0.48 to 1.60).The test for heterogeneity was significant (Q(df = 2) = 13.7841, p = 0.0010. Meta aggregation of the results from the included studies showed an improvement in about 64% of patients with globus symptoms after taking PPI for 2-16 weeks either alone or in combination with antacids, H2 blockers, gabapentin, prokinetics. There was improvement in pharyngeal and laryngeal symptoms along with positive changes seen on laryngoscopy and esophagoscopy in most papers while there was no significant improvement in endoscopy findings in two papers. Lifestyle modification an abnormal baseline 24-hours pH probe data, baseline interarytenoid and vocal fold mucosal abnormality, longer duration and a higher frequency of PPI dosage was significantly associated with an improvement of overall symptoms in patients on PPI therapy. **CONCLUSION**: The relationship between resolution of globus hysterius and proton pump inhibitors is not statistically significant. Although two out of three studies showed a positive relationship, our meta-analysis did not yield any significant results. The qualitative meta- aggregation also emphasizes the influence of various demographics, patient habits, and other investigations on individual patient outcomes. More randomized controlled trials are needed to further explore the relationship between PPIs and globus hysterius.

Keywords: Globus hystericus; Proton pump inhibitors; Laryngopharyngeal reflux; Symptom improvement; Systematic review.

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