Examination and Treatment Scenario in Urogynecology Case During COVID-19 Pandemic: A Review

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Abstract

The number of COVID-19 cases continues to increase therefore health services in hospitals must adapt to the COVID-19 pandemic. One of the services that must be affected is urogynecology services. This study aims to examine scenarios in the examination and treatment of patients with urogynecological cases in hospitals during a pandemic. A non-systematic review examines several scientific articles related to recommendations. The articles were searched through the PubMed and Google Scholar databases with the keywords "urogynecology patient" or "hospital" or "treatment" or "urogynecology care" and "COVID-19". Data is arranged in the form of scenarios and narrative reviews. The scenario carried out is telemedicine, except for certain severe cases, so one must go to the hospital with a record of patient protection against COVID-19. It is possible to use online to prevent the accumulation of patients in the hospital. Management emphasizes non-surgical solutions such as lifestyle, nutritional patterns, behavioral concepts, and periodic drug administration. Implementation is carried out with preconditions, namely patient safety, an integrated system related to payment and prescription of drugs. Things that need to be underlined in telemedicine governance are the need for adequate counseling and good cooperation between doctors and patients because this will affect diagnosis and management. This effort makes it possible to break the chain of infection in urogynecology services and the need for further research related to a complete and comprehensive application system.

Keywords: *urogynecology, examination, treatment, hospital, COVID-19*

Introduction

SARS-Cov 2 is the virus that causes a worldwide pandemic. The number of cases continues to increase every day with the number of deaths that continues to increase. The rapid spread of disease creates challenges for the health care system [1]. Infection prevention practices are the best at the moment considering that COVID-19 is a highly contagious disease. Approaches are needed to implement strategic actions and priority areas, especially in hospital management. The hospital's essential service scheme must aim to prevent exposure to people who are at risk of contracting comorbidities while still providing excellent service for COVID-19 patients and non-COVID-19 patients.

Health systems around the world face the challenge of increasing demand for healthcare by people with COVID-19, which is exacerbated by fear, stigma, misinformation and movement restrictions that interfere with the delivery of health services for all diseases. The system's ability to sustain health services will depend on the underlying disease burden, as well as the capacity of the health system during a pandemic. A well-organized and well-prepared health system will be able to maintain

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equal access to quality essential health services during emergencies, to limit direct deaths and prevent indirect deaths [2].

In an essential health care scheme, adaptation is done through retaining a cadre of health care workers who are trained as powered air-purifying respirators and super users of high-level protective equipment, including nurses and providers, with quarterly recertification and training in wearing and doffing in personal protective equipment. , maintain standard operating procedures (SOPs) for the care of patients with serious infectious diseases, which are recognized by departmental administrations and can be rapidly deployed and scaled as needed and use universal travel screens at patient entry points to screen and isolate patients with infectious symptoms [3].

Urogynecology health services must also adapt to a pandemic situation. Although adaptations and provisions are being made to manage urogynecological conditions, given that the majority of patients are elderly with comorbidities that increase the risk of COVID-19 morbidity and mortality, and with most surgical procedures for quality of life, elective activity is expected to be continued. Consequently, there is likely to be a significant impact on quality of life in this cohort of patients and the impact of delay in diagnosis and treatment on disease trajectories remains to be determined [4]. The risk of COVID-19 severity increases with age, with older adults at the highest risk. At the age of 50-64 years, patients have a 4x higher risk of being hospitalized and a 30x higher risk of developing severe symptoms until death [5]. This is a problem because patients with one of the urogynecological cases such as prolapse are mostly elderly. A study shows that age is a major factor affecting the degree of uterine prolapse, weakening of the pelvic floor tissue and muscles in elderly women as the main cause [6]. On this basis, efforts are needed to anticipate and protect patients from exposure in the hospital.

This study aims to discuss scenarios in the examination and treatment of urogynecology case patients in the hospital during a pandemic.

Method

A non-systematic review examines several scientific articles related to recommendation systems. This literature review is conducted by digging up the qualified articles found through Pubmed, Google Scholar, and the SCOPUS database. The literature search is carried out using boolean logic including (AND, OR, NOT, or AND NOT) which is used to specify searches, making it easier to determine articles or journals that match the research topic. The keywords in this literature review are adjusted to the Medical Subject Heading (MeSH). We used articles from the last 3 years to 2020 with searches for the keywords ‘urogynecology patient’ or ‘hospital’ or ‘treatment’ or ‘urogynecology care’ and ‘COVID-19’. Duplicate articles are removed. We screened potentially eligible articles by article titles and abstracts obtained from extensive searches, and then, the full text of this screened trial was assessed for eligibility according to inclusion and exclusion criteria. The first data regarding the management of activities in urogynecological diseases specific to urinary incontinence, anal incontinence, urinary tract infection, and prolapse include assessment and management. The urogynecological management scheme is illustrated in the diagram. The management was studied descriptively.

Results and Discussion

Health services are focused virtually. Management emphasizes non-surgical solutions such as lifestyle, nutritional patterns, behavioral concepts, and periodic drug administration. Surgery for gynecological patients during the COVID-19 pandemic must be carried out on a case-by-case basis, taking into account patient-level factors and available human resources. Minimally invasive and vaginal approaches to surgery are associated with lower morbidity for patients in most cases, as well as shorter hospitalizations. There are strategies for all surgical approaches that can help reduce the risk of exposure to operating room personnel. In pessary fitting services for prolapsed patients, it is known that patients can safely extend the time interval between pessary clearance by up to 6 months (and, in some cases, up to 24 months) with minimal risk of side effects, patients who are able to remove the pessary and reinsert the pessary should be encouraged. to self-

clean their pessaries, providers should consider empiric vaginal estrogen to minimize side effects for patients who have not used vaginal estrogen, for patients who report excessive vaginal discharge or bleeding, it may be appropriate to encourage self-removal at home and observe symptoms such as urinary dysfunction until the patient can be safely evaluated at the office. Empiric treatment for bacterial vaginosis can be considered [7].

Prior to the onset of the pandemic, the hospital had a surgical waiting list scheme. The aim of having a pooled waiting list is used to maximize the use of surgical resources. Acceptance of the surgical waiting list collected among urogynecologic patients was overall low, regardless of disease severity. Increasing healthcare workers' understanding of urogynecological patient concerns and potential negative perceptions of surgical waiting lists is necessary to ensure patient comfort and satisfaction are not compromised[8]. This discomfort is likely to become a burden as the pandemic forces many surgical procedures to be postponed.

The risk of COVID-19 infection during urogynecologic surgery is unknown, but theoretically low. The urogynecological procedure is considered a category 3 operation and can therefore be postponed without problems during the "hot" phase of the epidemic. It is important to apply nonsurgical management for urinary incontinence, as suggested by the International Urogynecological Association[9]. Depending on the local situation, the procedure can be performed in patients with high symptoms when the risk of transmission decreases (phase 2) [10].

Management in urogynecology such as physiotherapy faces the challenge of continuing its work safely, given the application of social distancing measures during the COVID-19 pandemic. Telefisiotherapy can also be used to provide continuity of care in this area during the COVID-19 pandemic, opening up new perspectives for physiotherapy in the field of urogynecology [11]. In addition, in the management of female pelvic floor dysfunction, telehealth promotes significant improvements in urinary tract symptoms, pelvic floor muscle function and quality of life. Data shows that women who receive remote intervention experience significant improvement in symptoms, such as reducing the number of episodes of incontinence and frequency of urination, increasing pelvic floor muscle strength and improving quality of life compared to women who receive face-to-face care [12].

All patients, service providers and staff who have symptoms such as fever, cough or other respiratory symptoms and travel history should be screened for COVID-19. Cancer patients and survivors should use stronger personal protection. Patients who have symptoms should not attend a conccology clinic or ward, but consult their family doctor or Emergency Room and rule out COVID-19. Measures should be taken to limit the duration of visiting hours and limit the number of people accompanying patients. Communication with the patient's family or friends must be made by telephone or other video system with the patient's consent. Medical care providers must be equipped with eligible goggles, masks, surgical gowns and gloves. Case Referral Patients should be prioritized according to the severity of symptoms, the nature of the disease, availability of joint care with the family doctor, chances of recovery and the patient's physical fitness. Since there is evidence that cancer patients undergoing surgery and / or chemotherapy are at risk of developing severe complications of COVID-19, the decision must be made whether elective surgery or additional chemotherapy for certain cancer patients especially those with stabilizing disease can be postponed. Surgery Discontinuation of surgery should be performed where resources are limited, and should be based on factors such as patient symptoms, biology of disease, expected life expectancy, operation intent, complexity of surgery and possible intensive care unit / high dependency unit requir- ment. Decisions should be fully discussed in a multidisciplinary team and communicated to patients and their families. The number of operating room staff should be kept to a minimum that can maintain normal service, and an alarm or other system should be available that can call for immediate assistance during an emergency situation. An improved recovery path should be adopted to reduce hospital stay. Minimally invasive surgery including robotic surgery can shorten the patient's stay in the hospital, and can minimize body fluid spills and the number of medical staff exposed directly [13].

Telemedicine is key in minimizing exposure without compromising care and quality of life. Non-surgical options are essential for starting a treatment plan while elective surgery is still limited in many hospitals. Drug management and innovative technology, such as smartphone applications, are playing an important role. Telemedicine has opened new doors to the field of urogynecology which enables safe and sustainable evidence-based care. The pandemic culture has shifted the balance from surgery to nonsurgical care while trying not to compromise outcome or quality of care[14]. A strategy in dealing with piles of patients in the hospital. Telemedicine is an important tool, regardless of whether the institution has the right platform or if doctors use mobile and smartphone applications. Some of the problems faced such as lack of massive tests for patients, and insufficient personal protective equipment. In the strategy of protecting patients and health workers from exposure, the need for the readiness of the operating room and space to provide services by minimizing contact and piles of patients in the hospital [11]. Health literacy, technology tools, and internet access are not universally available. Therefore, a multidimensional approach is needed to provide various options for patients seeking urogynecology care [7].

Telephone interviews have been proposed to follow up patients at home after surgery. A prospective crossover blind comparative study was performed involving women after surgery for SUI and/or cystocele. The first evaluation was carried out with TI, including a list of questions and a validated questionnaire [Patient Global Impression of Improvement (PGI-I), Patient Perception of Bladder Condition (PPBC)]. In the results, it was found that telephone interviews could assess the recurrence of anterior vaginal POP in all women due to the fact that all women had cystocele before surgery. Despite this, there were errors in the telephone interview that led to the misdiagnosis of extrusion due to a lack of symptoms[15].

Telemedicine efforts must go through application standards for patients. The e-mail platform must meet all standards of interoperability and privacy, considerations of ease of access, accountability, use of an integrated billing system, timely delivery of laboratory data, use of remote communication for triage checks, and case management. Develop electronic examination instruments, conduct rapid online training for application use. [2] Figure 1 examines a scenario that might be applied in an urogynecology patient care setting in a hospital.

Artificial intelligence development consists of using complex algorithms for machines to reason and perform cognitive functions, including problem-solving, outcome prediction, and decision making. This tool allows progress in remote treatment, the patient condition can be monitored, tracked, and managed virtually as well as automates scheduling between caregivers, manage treatment plans, create alerts for follow-up, and automate billing, as well as a portal for patients and families. Virtual visits allow follow-up that does not require a physical examination and can shorten waiting times while avoiding transportation difficulties for patients who live far away or with limited mobility. The challenges include updating new knowledge information that needs to be obtained regularly, new types of errors that can occur (including algorithms that do not predict results correctly), confidentiality and ethical issues, intellectual property issues, and the expensive funds required to develop the technology. Service providers must learn to introduce these new tools into practice while maintaining a humane, caring approach to patient care[16].

The solution in examination and treatment through telemedicine is possible in Indonesia because based on Kominfo data, it is noted that internet users have increased to 73.7 percent. This figure is up from 64.8 percent from 2018. Internet users are around 196.7 million users. This number is up from 171 million in 2019 or an increase of around 8.9 percent or around 25.5 million users.[17] The literacy rate data has increased from 2018 to 2020. In 2018 it was recorded at 98.07, in 2019 it was recorded at 98.22 and in 2020 it was recorded at 98.29.[18] This figure shows the possibility of implementing telemedicine in Indonesia. The use of the internet makes it possible to support services in urogynecology and reduce the spread of COVID-19. Application development and telemedicine schemes must be packaged clearly so that they are able to provide quality services even during a pandemic.

Conclusion

Scenarios that can be used in urogynecology services in hospitals are patient preparation and patient willingness to cooperate with doctors, follow-up virtually if this is not possible through scheduled meetings with strict health protocols. The need for an application that is capable of scheduling virtual meetings, payment schemes, and structured recipe taking. The thing that really needs to be underlined in the implementation of this media is the need for patient and doctor cooperation so that counseling runs well because it will affect the provisions of diagnosis and management.

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References

1. Hall, Heather. The effect of the COVID-19 pandemic on healthcare workers' mental health, Journal of the American Academy of Physician Assistants: July 2020 - Volume 33 - Issue 7 - p 45-48 DOI: 10.1097/01.JAA.0000669772.78848.8c
2. WHO. 2020. Mempertahankan layanan kesehatan esensial: panduan operasional untuk konteks COVID-19.
3. Yaffee AQ, Peacock E, Seitz R, et al. Preparedness, Adaptation, and Innovation: Approach to the COVID-19 Pandemic at a Decentralized, Quaternary Care Department of Emergency Medicine. *West J Emerg Med*. 2020;21(6):63-70. Published 2020 Sep 25. doi:10.5811/westjem.2020.8.48624
4. Loganathan, J., Doumouchtsis, S.K. & CHORUS: An International Collaboration for Harmonising Outcomes, Research and Standards in Urogynaecology and Women's Health. Impact of COVID-19 on management of urogynaecology patients: a rapid review of the literature. *Int Urogynecol J* (2021). https://doi.org/10.1007/s00192-021-04704-2
5. CDC, 2020. Coronavirus 2019-ncov needs extra precautions for older adults. Accessed on https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html
6. Shervil Kagayaita Sayko, Eighty Mardiyan Kurniawati, Pudji Lestari. 2018 volume 1 issue 1. Biomolekular and Health Science Journal
7. Grimes CL, Balk EM, Crisp CC, Antosh DD, Murphy M, Halder GE, Jeppson PC, Weber LeBrun EE, Raman S, Kim-Fine S, Iglesia C, Dieter AA, Yurteri-Kaplan L, Adam G, Meriwether KV. A guide for urogynecologic patient care utilizing telemedicine during the COVID-19 pandemic: a review of existing evidence. Int Urogynecol J. 2020 Jun;31(6):1063-1089. DOI: 10.1007/s00192-020-04314-4. Epub 2020 Apr 27. PMID: 32342112; PMCID: PMC7185267.
8. Zee RA, Clancy AA, Khalil H. Patient attitudes toward pooled surgical waitlists in urogynecology. Int Urogynecol J. 2020 Feb;31(2):311-317. doi: 10.1007/s00192-019-04050-4. Epub 2019 Jul 26. Erratum in: Int Urogynecol J. 2019 Dec 7;: PMID: 31346655
9. IUGA. 2021. Guidance for the management of urogynecological conditions during the Coronavirus (COVID-19) pandemic, accessed on https://www.iuga.org/publications/covid-19-guidance-for-urogynecological-conditions
10. Chiofalo B, Baiocco E, Mancini E, et al. Practical recommendations for gynecologic surgery during the COVID-19 pandemic. International Journal of Gynaecology and Obstetrics: the Official Organ of the International Federation of Gynaecology and Obstetrics. 2020 Aug;150(2):146-150. DOI: 10.1002/ijgo.13248.
11. Ferreira, C.H.J., Driusso, P., Haddad, J.M. et al. A guide to physiotherapy in urogynecology for patient care during the COVID-19 pandemic. Int Urogynecol J 32, 203–210 (2021). https://doi.org/10.1007/s00192-020-04542-8
12. Da Mata KRU, Costa RCM, Carbone ÉDSM, Gimenez MM, Bortolini MAT, Castro RA, Fitz FF. Telehealth in the rehabilitation of female pelvic floor dysfunction: a systematic literature review. Int Urogynecol J. 2021 Feb;32(2):249-259. doi: 10.1007/s00192-020-04588-8. Epub 2020 Nov 11. PMID: 33175229; PMCID: PMC7657071.
13. Ka Yu Tse, Efren J. Domingo, Hiralal Konar, Suresh Kumarasamy, Jitendra Pariyar, Brahmana A. Tjokroprawiro, Kimio Ushijima, Perapong Inthasorn, Ai Ling Tan, and Sarikapan Wilailak, The Oncology Committee, Asia and Oceania Federation of Obstetrics and Gynecology. COVID-19 and gynecological cancers: Asia and OceaniaFederation of Obstetrics and Gynecology

oncologycommittee opinion. J. Obstet. Gynaecol. Res. 2021.

14. Serna-Gallegos, Tasha; Ninivaggio, Cara S. A lasting impression: telemedicine in urogynecology during the coronavirus disease 2019 pandemic. Curr Opin Obstet Gynecol ; 32(6): 456-460, 2020 12.
15. M. Balzarro, E. Rubilotta, S. Bassi, T. Processali, M. Pirozzi, A. Soldano,N. Trabacchin, V. Mancini, E. Costantini, W. Artibani (AOUI Verona,Verona. Utility and criticism of telemedicine inurogynecology: A prospective study. European Urology Supplements 17 (2018), 167–374
16. Bentaleb, J., Larouche, M. Innovative use of artificial intelligence in urogynecology. Int Urogynecol J 31, 1287–1288 (2020). https://doi.org/10.1007/s00192-020-04243-2
17. KOMINFO, 2020. Survei Penetrasi Pengguna Internet di Indonesia, Accessed on https://www.kominfo.go.id/content/detail/30653/dirjen-ppi-survei-penetrasi-pengguna-internet-di-indonesia-bagian-penting-dari-transformasi-digital/0/berita_satker
18. BPS, 2020. Angka melek huruf di Indonesia. Accessed on https://www.bps.go.id/indikator/indikator/view_data/0000/data/1466/sdgs_4/1