

Getting to know Benign Prostatic Hyperplasia (BPH) in daily practice

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ABSTRACT

BPH or Benign Prostatic Hyperplasia is a histological diagnosis due to hyperplasia of stromal cells and epithelial cells of the prostate gland. Thought to occur due to the influence of hormones, dietary patterns, microtrauma, inflammation, obesity, and physical activity Occurs in elderly males and has testicles that still produce testosterone. This paper was created by searching the literature from clinical practice guides, scientific literature, websites, and textbooks on the topic of BPH. Results and Discussion: BPH often occurs in old age, has to do with diet, comorbidities, physical activity/exercise, smoking, work and education. Some treatments, namely conservative therapy, medicamentosa, phytopharmaceuticals and surgery. The selection of therapy starts from the least invasive aimed at improving quality of life. BPH is difficult to prevent, preventive measures are very important for prevention. Conclusion: BPH can decrease quality of life although not deadly. Management depends on the level of the patient's complaint, complications, available facilities, and the patient's choice. The ability to recognize diseases, diagnose and provide therapy is not the same because of differences in facilities and human resources. It is hoped that doctors in remote areas can recognize and diagnose BPH early in order to handle patients as well as possible.

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INTRODUCTION

Prostate is something gland accessories sex largest in men shaped cone reversed and coated capsule fibromuscular. Located below orifice urethra internum in the pelvic cavity, inferior to the lower border symphysis pubis, above urogenital diaphragm, anterior to rectum. The shape like fruit canary, normal weight in adults approximately 20 grams. Position The prostate is retroperitoneal, encircling the bladder neck and urethra. Composed top 4 zones: Peripheral zone, constitutes 70% of part glandular prostate, forming the lateral and posterior or dorsal parts of this organ. Central zone, constitutes 25% of part glandular prostate, known with network gland shaped wedge, around duct ejaculatory part The apex is at the verumontanum and the base is at the neck bulky. Central and peripheral zones form filled funnel _ segment urethra proximal as well as part ventral No complete closed, but connected by fibromuscular stroma. Transitional zone, is part The

smallest prostate gland (5%), located at the distal border of the sphincter preprostatic, shaped cylindrical and formed by parts proximal urethra. Transitional zone and glands periurethral together the so-called as gland preprostatic (Biddulth 2016).

In the prostate it is known the disease mentioned *Benign Hypertrophic Prostate* or *Benign Prostatic Hyperplasia* (BPH), actually BPH is term histopathological, hyperplasia occurs in the transitional zone Because increase amount stromal and epithelial cells Because increase in prostate volume or hyperplasia stromal cells and cells epithelium gland prostate. (Lubis, Lubis, and Masitah 2016). By microscopic consists element proliferating glands and fibromuscular stroma lined by cells epithelium tall columnars and layers _ peripheral flat basal cells. Glandular lumen often contain material known secretory lamin proteinase _ as corpora amylacea (Julianto, Ekowati, and Muflihah 2020) (Ari Anggoro, Claudia Fitri Sanjung Syamdini, Dila Wati, Ika Herliana Sumantri et al. 2022). Prostate develops in males who step on it age old or further and the testicles are still produce testosterone. *Benign Term Prostatic Enlargement* (BPE) is consequence increase in prostate volume Because change histopathological benign in the prostate or *Benign Prostatic Hyperplasia* (BPH). About 50% of developing cases of BPH becomes BPE, then BPE will be give rise to obstruction in the duct urinary tract, which is known with term *Benign Prostatic Obstruction* (BPO) is resulting disease _ obstruction in the neck birth urinary and urethral, named *Bladder Outlet Obstruction* (BOO). BPO or BOO must confirmed use inspection urodynamics (Tjahjodjati et al. 2017). Enlargement prostate cause narrowing of the lumen of the urethra prostatic and obstructive Genre urine, so happen enhancement pressure intravesical Because mass prostate clog posterior urethra, and is also caused by smooth muscle tone in the stromal and epithelial cells prostate, capsule prostate, and smooth muscles of the neck feathers so that give rise to complaint channel urinary (Suryawan 2016) (Dhani Achmad Maulana 2021).

Causes of BPH to moment This Not yet is known sure, some hypothesis state relate with increase dihydrotestosterone (DHT) and the aging process, namely: Dihydrotestosterone Theory that is Androgen metabolites are very important in growth cell gland prostate. DHT is formed in testosterone in the cell gland prostate by the enzyme 5 α phareductase with help the coenzyme nicotinamide adenine dinucleotide phosphatase-oxidase (NADPH). DHT is formed earlier bonded with androgen receptor (RA) forms DHT-RA complex in the cell nucleus and beyond happen synthesis stimulating *growth factor* protein growth cell prostate. Imbalance between estrogen-testosterone in men carry on age, grade testosterone decrease whereas rate estrogen fixed, so comparison between estrogen and testosterone relatively increase. Estrogen in the glands prostate role for proliferation cell gland prostate The method with increase amount androgen receptors and lowers amount death cells gland prostate (apoptosis). On circumstances This although stimulation formation cells new consequence stimulation testosterone decreased, however cells prostate that has previously have older age _ long so that mass gland prostate become more big (Boldini et al. 2015) (Sari and Indi 2020) (Anik Ujyanti 2015). Stroma- epithelium interactions differentiation and growth cell epithelium gland prostate in a way No directly controlled by stromal cells through _ a particular mediator (*growth factor*). Stromal cells are stimulated from dihydrotestosterone and estradiol, stromal cells (synthesize a growth factor that will influence the stromal cells itself), and cause happen proliferation cell epithelium nor stromal cells. Decreased death cell prostate death program cells (apoptosis) in cells gland prostate is mechanism physiology for maintains glandular homeostasis prostate and so on cells undergoing apoptosis will _ phagocytosed surrounding cells, then _ degraded by enzymes lysosomes. In normal networks, there is balance between proliferation and cell death. When starting growth gland prostate until gland prostate adult, addition amount cells gland prostate new with the dead in circumstances balanced. Amount cell gland prostate undergoing apoptosis is reduced cause amount cell gland prostate in a way whole increases and causes increase mass gland prostate or hyperplasia. BPH occurs factor growth local or receptor factor abnormal growth, causes increasing proliferation or decreasing death cells (apoptosis). Until Now This Not yet Can explained Certain factors that inhibit the apoptotic process, possibly

allegedly androgen hormones that inhibit the death process cell. Estrogen allegedly capable extend age cells gland prostate, meanwhile factor growth *transforming growth factors beta* (TGF β) plays a role in the apoptosis process (Rahman 2016) (Nim, 2013)(Bimandama and Kurniawaty 2018) .

The World Health Organization (WHO) also estimates there are 70 million case degenerative, one of them are BPH and incidence this is expected Keep going increased. In 2009 the population in 11 member countries of the WHO Southeast Asia region aged over 60 years amounted to 142 million and is estimated will Keep going increase up to 3 times in 2050 in BPH cases. In 2013 according to WHO it was found almost 70 million BPH cases, with incident as many as 19% in developed countries and 5.35% of cases in developing countries. According to data from the Indonesian Ministry of Health, the disease This is in Indonesia order second in the field urology after channel stones urinary system and attacks 12 people every 100,000 people (Sari and Indi 2020) (Julianto, Ekowati, and Mufliah 2020) . In Indonesia alone exact number _ Not yet Once researched, however as description prevalence at Cipto Hospital Mangunkusumo (RSCM) in 1994-2013 found 3,804 cases with average age sufferer aged 66 - 61 years. Meanwhile the data was obtained from Hasan Hospital Sadikin from in 2012-2016, 718 cases were found with average age sufferer 67.9 years old (Tjahjodjati et al. 2017) . Based on study Malasari et al. in 141,035 men , the incidence of BPH was 15 events per 1,000 men per year with Most BPH sufferers are aged 61-70 years or age over 50 years (Julianto, Ekowati, and Mufliah 2020) . Determine management of BPH can seen from description useful histology For repair quality life patient, degree complaints, circumstances patients, as well availability facility local. A number of choice are: A. Conservative (*watchful waiting*) B. Medicamentosa, C. Surgery D. others (conditions specifically). Namely: A. Conservative form *watchful waiting* that is patient No get therapy whatever but development the disease supervised doctor. BPH patients with IPSS score < 7 (complaints light, no bother activity daily). Given possible explanation _ worsen complaints, for example: 1) Don't Lots drinking and consuming coffee, alcohol after Eat night, (2) Reduce food or the drink that makes irritation birth urine (coffee or chocolate), (3) Influenza medication is restricted (contains phenylpropanolamine), (4) Do not holding BAK for too long. (5) Handling constipation. Do control periodically (3-6 months) for evaluate change perceived complaints, IPSS, uroflowmetry, and residual urine volume. If complaints urinate increase bad , necessary thought For choose other therapies (Tjahjodjati et al. 2017) . By conducting this literature review, it is hoped that it can help health workers and the public know the dangers, symptoms, factors that affect the occurrence of Benign Prostatic Hyperplasia (BPH) so that prevention can be done at the beginning.

RESEARCH METHOD

This writing is study literature that takes from a number of source reliable article covers knowledge about hyperplasia the prostate is the case can be found in practice doctor daily. Source of writing in make review literature. Each article reviewed can be used as literature. This covers studies search systematic computerized database in form journal research, review articles and books. Writer take part important from each writing and combining to each each part theme in accordance focus important things in the article so that writer can make conclusion about How recognize and diagnose disease hyperplasia prostate in practice daily doctor general (Pranata & Sinaga, 2023).

RESULTS AND DISCUSSIONS

A number of possible factors give rise to incidence of Benign Hyperplasia Prostate. In this article quoted a number of study factor the risk that causes incidence of BPH. Patient with disturbance prostate or BPH is the average complaint difficult urination (BAK). As in research conducted by Filzha Adelia, et al, with total patients as many as 39 people (100%), all sigh difficult BAK (Adelia, Monoarfa, and Wagiu 2017) . Another research conducted by Hafizhah Triana Sakinah Mulyadi et

al. Diagnosed patient with hyperplasia prostate nor adenocarcinoma prostate own complaint most common is No can urination or retention urine. On research This amount case hyperplasia prostate with retention urine as many as 287 cases (100%) whereas adenocarcinoma prostate as many as 20 cases (100%) (Mulyadi and Sugiarto 2020).

Table 1. Vome previous studies that discuss the causes of

No	Title	Content of article	Author
1	250 gambaran benigna prostat hiperplasia di rsup prof. Dr. R. D. Kandou manado periode januari 2014 - juli 2017.	Patient with disturbance prostate or bph is the average complaint difficult urination (bak).	(adelia, monoarfa, and wagi 2017)
2	Revalensi hiperplasia prostat dan adenokarsinoma prostat secara histopatologi di laboratorium patologi anatomi rumah sakit umum daerah cibinong	Diagnosed patient with hyperplasia prostate nor adenocarcinoma prostate own complaint most common is no can urination or retention urine.	(mulyadi and sugiarto 2020)
3	Hubungan usia dan kebiasaan merokok terhadap terjadinya bph di rsud dr. H. Abdul moeloek bandar lampung tahun 2015.	Habit heavy smoking experiencing bph	(suryawan 2016)
4.	Faktor resiko kejadian benigna prostat hiperplasia (bph) di poli klinik urologi.	Risk affected by bph with activity exercise < 3 times a day a week for 30 minutes is 3,039 times more big , in comparison with the man did it activities exercise ≥ 3 times a week for 30 minutes	(syahwal, m., dewi, i., pengajar, s., & diii, p. 2016)
5.	Faktor yang berhubungan dengan kejadian hipertropi prostat di rumah sakit dr. Wahidin sudirohusodo makassar.	Dietary habit as well as the food consumed is suspected is reason occurrence of bph	(djawa, m. N. N., alam, h. A., & haskas, y. 2014).
6	Hubungan benign prostate hypertrophy dengan disfungsi ereksi di rsud arifin achmad provinsi riau.	Age is very related conditions with bph, where the incidence of bph will the more increase along with increase age	Fitriana, n., zuhirman, & suyanto. (2014).
7	Hubungan lower urinary tract symptoms (luts) terhadap kualitas hidup pasien bph di klinik urologi rsd mangusada badung	Types lots of work too done is there is relationship with incidence of bph	Ayu, d., alit, k., dwie, i. M., susila, p., nara, a. A. N., & badung, m. K. (2021).
8	Pengaruh terapi dzikir terhadap tingkat nyeri pada pasien post operasi benigna prostat hyperplasia di rsud ra .kartini jepara.	A number of study that education is also one matter for the emergence of bph	Himawan, r., rosiana, a. R., yulisetiyaningrum, y., & ariyani, n. (2019).

The table above is some basic research that discusses Prostatic Hyperplasia (BPH) that has been reviewed. In some of these review articles discuss how Prostatic Hyperplasia (BPH) can occur, what factors make Prostatic Hyperplasia (BPH) can occur. Other things to clarify the discussion of Prostatic Hyperplasia (BPH) can be more clearly explained below. This matter happens because: gland prostate in men located in the pelvis below the bladder urinary. Seminal vesicles located behind gland prostate, gland prostate surround part urethra that is something channel for out urine moment urination and semen during ejaculation. Urethra walk start from the urinary bladder through gland prostate until penis, so abnormalities in the gland prostate can cause often disturbed micturition, ejaculation, and sometimes bother defecation. Normally, glandular prostate consists from glands and stroma. In men mature estimation gland prostate 3 cm long and heavy not enough more than 20 grams. Glands prostate divided into: central zone (25% of the gland volume), peripheral zone (30% has more Lots epithelium usual and place For happen cancer prostate), transitional zone (spot part big hyperplasia benign prostate). Gland prostate contains a round body small so- called corpus amyloseum with size 0.2 - 2 mm consists from glycoprotein. This body often experience calcification and increase along with increase age.

Enlargement prostate cause narrowing of the lumen of the urethra prostatic and obstructive Genre urine, so happen enhancement pressure intravesical. Because mass prostate clog posterior urethra, and is also caused by smooth muscle tone in the stromal and epithelial cells prostate, capsule prostate, and smooth muscles of the neck feathers so that give rise to complaint channel urinary (Suryawan 2016) (Dhani Achmad Maulana 2021) . In cancer prostate can caused pain, difficulty urination, problem during _ stage connection sex, dysfunction erection at an advanced stage, but at an early stage Not yet there is signs clinic (Chodidjah 2009) (Hafsah, Alang, and Muh. Sri Yusal 2022) . Other functions of the gland prostate, influence androgen hormones, incl Testosterone is produced by the testicles viz dehydroepiandrosterone relate with sexual secondary example growth facial hair and increased muscle mass and secretion _ fluid dilute, like milk which contains citrate ions, calcium, phosphate ions, enzymes freezing, and profibrinolysin. During charging, hoop gland prostate contract in line with contraction of the ductus deferens so that fluid runny like milk secreted by glands prostate (when ejaculation) adds more Lots Again amount of cement (Chodidjah 2009) (Hafsah, Alang, and Muh. Sri Yusal 2022) .

Other factors can be cause BPH is habit smoking. Like on research conducted by Boby, with amount patient as many as 102 people, visible that habit heavy smoking experiencing BPH, namely as many as 57 respondents (55.9%), and were light smokers that is as many as 45 respondents (44.1%) (Suryawan 2016) . Research by Amalia R on respondents have habit smoking >12 cigarettes own risk more big affected by BPH compared with No smoker (Amalia 2019) . Another research by Maria Noviat Ngadha Djawa et al, from 40 respondents, total respondents who smoke as many as 23 respondents (57.5%), while those who did not smoke as many as 17 respondents (42.5%) (Djawa, Alam, and Haskas 2014) . Research by Ranida Arsi et al, from 89 respondents who had history smoke more big amounting to 51 respondents (57.3%), compared with those who don't own history smoke totaling 38 respondents (42.7%) (Arsi et al. 2022) . Research by Bagus et al, where results analysis obtained habit smoke is factor risk from incidence of BPH and respondents who have it habit smoke 3,756 times risk of developing BPH compared with respondents who did not own habit smoke (Setyawan and Saleh 2016) . Circumstances This caused content nicotine found in cigarettes _ can increase rate enzyme androgen destroyer, so happen decline rate testosterone, cigarettes increase level stimulating dehydrotestosterone _ gland prostate and conditions this can increase risk of BPH. Cigarette Alone lower concentration testosterone, meanwhile testosterone relate with concentration dehydrotestosterone plays a role important in development of BPH and *Lower Urinary Tract Symptoms* (LUTS) (Setyawan and Saleh 2016) . This includes events cancer prostate Lots caused by radiation and pollutants. Pollution industry, cigarette smoke, vehicle fumes can become trigger appearance enlargement prostate, which if No get good handling, then will develop become cancer (Djawa, Alam, and Haskas 2014) . Apart from cigarettes, alcohol can change balance hormone reproduction on each individual, fine boy and girl. In men drinks containing _ alcohol cause damage network testicular and failure synthesis testosterone and spermatozoa production. On research given man _ alcohol 220 ml each day for 4 weeks, will happen decline amount testosterone after 5 days from giving final. Also on a study, research consumption alcohol related _ with prostatic hyperplasia as many as 1,369 men in Italy before 75 years old has suffer symptoms of obstructive BPH (Setyawan and Saleh 2016) .

Sport is mandatory activities _ do it regularly and regularly to avoid it from BPH. In research by Muhammad Syahwal et al, from amount 28 sufferers did not risky as many as 13 respondents (54.17%), frequency highest is respondents at risk as many as 15 respondents (62.50%), (Syahwal et al. 2016) . Another study conducted at the hospital. Dr. Kariadi , RSI Sultan Agung, and RS Roemani Semarang who showed it that risk affected by BPH with activity exercise < 3 times a day a week for 30 minutes is 3,039 times more big , in comparison with the man did it activities exercise \geq 3 times a week for 30 minutes (Syahwal et al. 2016) .

Fixed man active exercising in a way regular, chance more A little experience disturbance prostate, including BPH. Good exercise if done 3 times in a week in 30 minutes, yes reduce internal

fat content blood so that rate cholesterol decrease. Besides that with still active exercising in a way regular, chance more A little experience disturbance prostate, because rate testosterone still high and DHT levels can lowered so that can zoom out risk prostate disorders (Setyawan and Saleh 2016). Dietary habit as well as the food consumed is suspected is reason occurrence of BPH Research conducted by Maria Noviat Ngadha DJawa et al, from 40 respondents, total pattern respondents _ eat it No Healthy as many as 23 respondents (57.5%), while the pattern eat it Healthy as many as 17 respondents (42.5%) (Djawa, Alam, and Haskas 2014) . Another research also by Maria Noviat Ngadha DJawa et al, out of 40 respondents, the respondents were obese as many as 28 respondents (70%), and no obesity as many as 12 respondents (30%) (Djawa, Alam, and Haskas 2014). Another research conducted by Ariadi, about history nutrition sufferer hypertrophy prostate in a hospital in Samarinda. In research This found , 81% of sufferers own history excessive fat consumption (Djawa, Alam, and Haskas 2014) . Something studies find exists connection between decline risk of BPH with consume fruit and food contain soybeans are rich in isoflavones. Soya bean as estrogen weak capable For block receptor estrogen in prostate, because If strong estrogen This If until stimulating receptor in prostate, can causes BPH. On studies demographics the incidence of BPH is more a little in men man Japan or a lot of Asia consume food from material soya bean. Based on results study expected respondents can in a way regular consume vegetable and fruit every daily minimum 15 grams/ day, consume fiber for mature per day is 25-35 grams .and vary type vegetables and fruit consumed every the day For can prevent risk of BPH. In addition to soybeans consume essential minerals like zinc, copper, selenium influence function reproduction man. The most important is zinc, because deficiency zinc heavy can cause subsequent reduction of the testicles happen decline rate testosterone (Pranata, 2022). Apart from that, food high fat and low fiber also makes decline testosterone levels that cause prostate disorders (Setyawan and Saleh 2016) (Djawa, Alam, and Haskas 2014) . A number of other things suggested For avoid incidence of BPH, namely avoid Lots drinking and consuming coffee or alcohol after Eat night, reduce consumption food or the drink that caused it bladder irritation urinary like coffee or chocolate, limit use influenza medicines containing phenylpropanolamine, don't withhold pee too long too handling fast If happen constipation (Tjahjodjati et al. 2017) .

Age is very related conditions with the onset of BPH such as research conducted by Boby from a total of patients as many as 102 people were obtained age the most respondents who experienced BPH were >65 years old namely 61 respondents (59.8%), and aged 50-65 years namely 41 respondents (Suryawan 2016) . Another study by Fitriani et al , age is very related conditions with BPH, where the incidence of BPH will the more increase along with increase age (Fitriana, Zuhirman, and Suyanto 2014) . Another research by Rasydin, et al entitled related factors with incident hypertopy prostate in space take care stay House ill Ibn Sina Makasar, shows There is connection between age with BPH with category age > 50 years 4 times more big (Fitriana, Zuhirman, and Suyanto 2014) . Research by Daniel Mahendrakrisna et al, with amount patients: 89 BPH patients in the study This For age the most is in the group aged 61-70 years (38.2%) with an average age of 65.75. Age youngest is 46 years old and age oldest is 86 years old. This is appropriate with theory says that incident BPH begins at age 50 and progresses along increase age (Mahendrakrisna et al. 2016) . Research conducted by Dewa Ayu Komang Alit Widiasih et al, with of 52 patients most ages were 56-60 years old (46.2%) as many as 24 people (Ayu et al. 2021) . Another study by Filzha Adelia et al, age of the total 39 patients, the largest age were 61-70 years old, 18 patients (46.15%) (Adelia, Monoarfa, and Wagiu 2017) . In research conducted by Hafizhah Triana Sakinah Mulyadi et al, 287 cases Hyperplasia Prostate with case the most in 2018 was 117 cases (40.76%). Group aged 65 - 74 years is range age the most that is amounting to 125 cases (43.55%), and group age The youngest is aged 45 - 54 years as many as 24 cases (8.36%) (Mulyadi and Sugiarto 2020) . In research by Jennifer et al, men group age on 60 years old with a total of 49 samples (94.2%) from the total number of patients was 52 people (Roberth et al. 2022) . In research by Muhammad Syahwal et al , from amount The highest number of sufferers is 24 people 8

(33.33%) people aged 51 – 60 years and > 60 years respectively (Syahwal et al. 2016) . Research by Rizka Himawan et al, from 22 sufferers the most age aged 61-70 years. (77.3%) as many as 17 people (Himawan et al. 2019) . Research by Sella Nadilla et al, from amount patient the largest number of 61 BPH patients is group age Elderly 60-69 years as many as 28 patients (45.9%) (Nadilla, Sangadji, and Ariwicaksono 2023) . Research by Smith Imanuel Saputra from data on patients who experienced BPH with a total of 53 sufferers at most is 21 people aged under 55 years old (Smith Immanuel 2023) . Research by Wayan Wirawan et al, was found Of the total 35 patients, the majority were aged aged 61 – 70 years there were 9 people totaling 45% (Wirawan and Kariasa 2020) .

Increasing age can also be cause rate abnormal keratinin. BPH can increases blood urea nitrogen, where increased urea inside blood This signifies kidney problems (Julianto, Ekowati, and Muflihah 2020) . Apart from that, age over 50 years risky suffer from BPH due to relate weakness including the detrusor and descending muscles function innervation and also lowering ability bully in maintain Genre urine during the adaptation process Because BPH obstruction so can give rise to symptoms of BAK. Increasing age, grade testosterone start decreasing and increasing slowly started 30 years old and down more quickly at the age of 60 years up. On increasing age old, level testosterone the more decrease whereas hormone estrogen relatively fixed, so decreased testosterone cause cells prostate that has older age long so that mass prostate become more big (Sinaga and Putri 2015) (Fitriana, Zuhirman, and Suyanto 2014) . Estimated about 70 cases degenerative including BPH with incidence in developed countries by 19% and in the country develop amounting to 5.35% of cases according to WHO (2013). The prevalence of BPH in Indonesia is estimated as many as 9.2 million case with prevalence in the province highest are the Special Region of Yogyakarta (DIY), Bali, North Sulawesi and South Sulawesi. Prevalence based on estimate amount sufferer cancer prostate the most located in East Java Province and Central Java Province. Whereas 18-25 % of BPH sufferers are men aged over 40 years, 70% in men 40 years old and >90% male >80 years old (Ari Anggoro, Claudia Fitri Sanjung Syamdini, Dila Wati, Ika Herliana Sumantri et al. 2022) .

BPH sufferers with disease accompanying always there is and can be become ballast on si patient. According to Andry Julianto's research et al, with amount patient as many as 51 patients and BPH was mostly aged 61-70 years as many as 23 people (45.1%) and BPH with disease accompanying as many as 12 people (23.5%) (Julianto, Ekowati, and Muflihah 2020) . Another research by Muhammad Syahwal et al, from amount 24 sufferers are at risk as many as 14 sufferers (58.33%) and those who did not risky as many as 10 sufferers (41.67%), in Diabetes Millitus (DM) sufferers (Syahwal et al. 2016) . In research by Ranida Arsi et al, out of a total of 89 sufferers. 89 respondents have More DM history big amounting to 58 respondents (65.2%), compared with those who don't own history of DM amounted to 31 respondents (34.8%) (Arsi et al. 2022) . Research by Sella Nadilla et al, from amount patient as many as 61 BPH patients did not There is disease accompanying as many as 34 patients (55.8%) and the rest have disease accompanying such as DM and hypertension (Nadilla, Sangadji, and Ariwicaksono 2023) . Research by Smith Imanuel Saputra from data on patients experiencing BPH with a total of 53 sufferers, at most many 29 people have hypertension degree 2 (Smith Immanuel 2023) . Research on types lots of work too done is here is relationship with incidence of BPH. Research conducted by Dewa Ayu Komang Alit Widiasih et al, of 52 patients part big respondents Work self-employed that is as many as 21 people (65.7%) (Ayu et al. 2021) . In another research by Muhammad Syahwal et al , from amount sufferers 24 people work as retired civil servants among respondents case as many as 7 respondents (29.17%) (Syahwal et al. 2016) . Meanwhile, other research by Rizka Himawan et al , from 22 sufferers big respondents laborer as many as 11 respondents (50.0%) (Himawan et al. 2019) .

Circumstances This Possible caused a lot of work confiscate time, so time For exercising become reduced, even No Once do sport. Whereas sport can reduce internal fat content blood so that rate cholesterol decrease. Apart from that, it is also true for men who remain active exercising

in a way regular, chance more A little experience disturbance prostate, because rate testosterone still high and DHT levels can lowered so that can zoom out risk disturbance prostate. Good exercise _ if done 3 times in a week in time 30 minutes (Ayu et al. 2021) . A number of study that education is also one matter for the emergence of BPH like research by Dewa Ayu Komang Alit Widiasih et al, from 52 patients, were found respondents 16 people had elementary school education (30.8%). Study This in line with study Wiarini, (2018), shows that the frequency of BPH sufferers is 76 people respondents elementary school education, namely 21 people with percentage 21.6% (Ayu et al. 2021) . Another research by Rizka Himawan et al , from 22 sufferers The largest number of people with elementary school education was 10 people (45.5%) (Himawan et al. 2019) .

A number of opinion and research that activity sexual tall one increase incidence of BPH Like research by Maria Noviat Ngadha DJawa et al, from 40 respondents studied there were 22 respondents (57.5%) who had activity sexual No regularly, 21 respondents (52.5%) had hyperplasia prostate and 1 respondent (2.5%) who did not experience hypertrophy prostate. 18 respondents (45.0%) were active sexual regularly, among others there were 3 respondents (7.5%) who experienced this hyperplasia prostate and 15 respondents (37.5%) who did not experience hyperplasia prostate (Djawa, Alam, and Haskas 2014) .Whereas research by Tri Sujiyati et al, stated No There is connection between activity regular sexual intercourse with BPH but may be caused by other factors such as : age, race, history family and diet (Tri sujiyati, Handoyo 2010). Hyperplasia prostate Possible can caused by activities sex excessive. During activities sexual gland prostate experience enhancement pressure blood before happen ejaculation, if supply blood to prostate always high, will happen obstacle prostate which results gland the swollen permanent. Excessive sex _ will result infection prostate so that cause prostate hyperplasia. Excessive sex _ can cause a man become thin as a result This happen Because its height intensity sex carried out by men No supported with intake food and sufficiency exercise good physical. Activity High sexual levels are also related with increasing testosterone hormone levels. However, in research else, it is possible with connection sexual more tall can lower incidence of BPH, accordingly opinion (Miller, 1990) that at age more than 50 years to on often do connection sexual can lower incidence of BPH (Tri sujiyati, Handoyo 2010) .

A number of management of BPH patients can be given, according to research by Filzha Adelia et al, from 39 patients most frequent action performed on BPH patients, namely TURP, in 20 patients (51.28%), followed treatment medicamentosa as many as 14 patients (35.90%) Open prostatectomy 5 people 12.82%. TURP is one of them action the most common surgery done For overcome enlargement prostate. Surgical action This chosen Because own minimal effect if compared right with type surgery other. Apart from action operatives are also used treatment medicamentosa with drugs inhibitor α -adrenergic (α -adrenergic blocker) for reduces prostate volume with method lower rate testosterone hormone or dihydrotestosterone through 5 α -reductase inhibitor (Adelia, Monoarfa, and Wagiu 2017) . Not all BPH patients need undergo action medical. Light LUTS can healed Alone without get therapy whatever or only with advice and consultation education just. However between they Finally someone needs it therapy medicamentosa or action other medical reasons his complaint the more critical. Management objectives BPH patients are repair complaint micturition, increase quality live, reduce obstruction infravesica, restore function kidney If happen fail kidneys, reducing the volume of residual urine after micturition and prevention progressiveness disease (Ayu et al. 2021) (Alsuwaydani, Salati, and Alsuwaydani 2021) .

CONCLUSION

Hyperplasia prostate benign (BPH) is a histological diagnosis consequence proliferation network epithelium and muscle smooth inside the transition zone prostatica. On the other hand, though difficult prevented, some action preventive, like election drugs that don't cause more BPH initial, style life Healthy with No smoking, exercising, looking after weight, and regulate balanced diet

pattern, yes postpone emergence of BPH in the population man carry on age. Although No deadly, BPH ability that can lower quality life patient in a way significant make patient need choice proper management. BPH patients should No postpone look for treatment Because Embarrassed. Diagnosis and treatment early can help lighten up symptom in a way effective. Do promotion, counseling and education health like factors reason the occurrence of BPH for society, so that you can effort prevention various type factor causes and things This can be given by a doctor general good in Practice Private/Independent, Hospitals, Health Centers and Primary Care. In future studies, it is hoped that researchers can examine single factors completely and clearly what causes and how to deal with Benign Prostatic Hyperplasia (BPH) in everyday life.

References

- Adelia, F., Monoarfa, A., & Wagiu, A. (2017). 250 Gambaran Benigna Prostat Hiperplasia di RSUP Prof. Dr. R. D. Kandou Manado Periode Januari 2014 - Juli 2017. *E-CliniC*, 5(2), 2014-2016. <https://doi.org/10.35790/ecl.5.2.2017.18538>
- Alsuwaydani, S. A., Salati, S. A., & Alsuwaydani, S. (2021). Benign prostatic hyperplasia-A literature review of three recent advances. *Researchgate.Net3*, (2), 21-18.
- Amalia, R. (2019). Faktor-faktor resiko terjadinya pembesaran prostat jinak (stud Kasus di RS DR . Kariadi , RSI Sultan Agung, RS Roemani Semarang) Risk Factors the Happening of Benign Prostatic Hyperplasia (Case Study at Kariadi , Roemani and Islamic Sultan Agung Hosp. *Jurnal Unimus*, 1, 4-8.
- ANIK UJIYANTI. (2015). ASUHAN KEPERAWATAN PADA Tn.H DENGAN BENIGNA PROSTAT HIPERPLASIA POST OPERASI OPEN PROSTATECTOMY DI RUANG ANGGREK RSUD PANDAN ARANG BOYOLALI.
- Ari Anggoro, Claudia Fitri Sanjung Syamdini, Dila Wati, Ika Herliana Sumantri, I., Pebyanti, Mardiana Ekayani, N. Y., , Yesi Wijayanti, A. F. T., & Sadewa, Farida Rahmatika, F. W. (2022). STUDI KASUS BENIGN PROSTATIC HYPERPLASIA (BPH). *Unram Medical Journal*, 11(2), 875-882. <https://doi.org/10.29303/jku.v11i2.705>
- Arsi, R., Afdhal, F., Fatrida, D., Kebidanan, F., Keperawatan, D., Kader, U., & Palembang, B. (2022). Faktor-Faktor Yang Berhubungan Dengan Kejadian Benigna Prostat Hiperplasia Di Poli Klinik Rsd Bayung Lencir Tahun 2021. *Indonesian Journal of Health and Medical*, 2(1), 33-44.
- Ayu, D., Alit, K., Dwie, I. M., Susila, P., Nara, A. A. N., & Badung, M. K. (2021). Hubungan Lower Urinary Tract Symptoms (Luts) Terhadap Kualitas Hidup Pasien Bph Di Klinik Urologi Rsd Mangusada Badung. *Jurnal Nursing Update-*, 12(1), 2021.
- Biddulth. (2016). Pemilihan Modalitas Pemeriksaan Radiologi Diagnosis Benign Prostatic Hyperplasia. *Media Neliti*, 43(6), 469-472.
- Bimandama, M. A., & Kurniawaty, E. (2018). Benign Prostatic Hyperplasia dengan Retensi Urin dan Vesicolithiasis Benign Prostatic Hyperplasia with Urine Retention and Vesicolithiasis. *Jurnal Agromedicine Unila*, 5(2), 655-661.
- Boldini, M., Cerantola, Y., Valerio, M., & Jichlinski, P. (2015). Urologie. In *Revue Medicale Suisse* (Vol. 11, Issues 456-457). <https://doi.org/10.53738/revmed.2019.15.634.0167>
- Chodidjah. (2009). Aspek imunologik pada kanker prostat. *Anatomi Histologi Fakultas Kedokteran Universitas Islam Sultan Agung*, 94(118), 1-14.
- Dewi, P. I. S., & Astriani, N. M. D. Y. (2018). Pengaruh Terapi Relaksasi Benson terhadap Intensitas Nyeri Pasien Post Operasi. *Jurnal Kesehatan Midwinerslion*, 3(1), 12-16.
- Dhani Achmad Maulana. (2021). FAKTOR YANG MEMPENGARUHI KEJADIAN BATU SALURAN KEMIH PADA PASIEN BENIGN PROSTATE HYPERPLASIA. *Jurnal Penelitian Perawat Profesional*, 3.
- Djawa, M. N. N., Alam, H. A., & Haskas, Y. (2014). *Faktor yang berhubungan dengan kejadian hipertropi prostat di rumah sakit dr. wahidin sudirohusodo makassar*. 5, 610-615.
- Fitriana, N., Zuhirman, & Suyanto. (2014). HUBUNGAN BENIGN PROSTATE HYPERTROPHY DENGAN DISFUNGSI EREKSI DI RSUD ARIFIN ACHMAD PROVINSI RIAU.
- Hafsah, H., Alang, H., & Muh. Sri Yusal. (2022). Peningkatan Pengetahuan “Penyakit Kanker Prostat” pada Masyarakat Dusun Mapung Buttu Kecamatan Campalagian, Kabupaten Polewali Mandar. *KREATIF: Jurnal Pengabdian Masyarakat Nusantara*, 2(2), 01-06. <https://doi.org/10.55606/kreatif.v2i2.392>
- Himawan, R., Rosiana, A. R., Yulisetiyaningrum, Y., & Ariyani, N. (2019). Pengaruh Terapi Dzikir Terhadap Tingkat Nyeri Pada Pasien Post Operasi Benigna Prostat Hyperplasia Di Rsd Ra .Kartini Jepara. *Jurnal*

- Ilmu Keperawatan Dan Kebidanan*, 10(1), 229. <https://doi.org/10.26751/jikk.v10i1.646>
- Julianto, A., Ekowati, R., & Mufliah, H. (2020). Karakteristik Hispatologi Prostat dan Hasil Pemeriksaan Laboratorium Glukosa, Ureum, dan Kreatinin pada Pasien Pasca Operasi Benign Prostatic Hyperplasia di RS Al-Ihsan Tahun 2018-2019. *Prosiding Kedokteran*, 6(1), 645-649.
- Lubis, H. M. L., Lubis, S. L., & Masitah, F. (2016). Pembesaran kelenjar prostat jinak dan ganas. *Buletin Farmatera*, 1(1), 17-19.
- Mahendrakrisna, D., Maulana, A., Kresnadi, E., Kedokteran, B. I., & Wacana, D. (2016). Faktor Yang Berhubungan Dengan Rawat Inap Pada Pasien Pembesaran Prostat Jinak. *Berkala Ilmiah Kedokteran Duta Wacana*, 1(2).
- Mulyadi, H. T. S., & Sugiarto, S. (2020). Prevalensi Hiperplasia Prostat dan Adenokarsinoma Prostat secara Histopatologi di Laboratorium Patologi Anatomi Rumah Sakit Umum Daerah Cibinong. *Muhammadiyah Journal of Geriatric*, 1(1), 12. <https://doi.org/10.24853/mujg.1.1.12-17>
- Nadilla, S., Sangadji, A., & Ariwicaksono, S. C. (2023). Karakteristik Pasien Benign Prostatic Hyperplasia (Bph) Berdasarkan Transabdominal Ultrasonography (Taus). *Jurnal Kesehatan Tambusai*, 4(4), 4648-4657.
- Nim, M. F. (2013). (BENIGNA PROSTATE HYPERPLASIA) STIKES MUHAMMADIYAH KUDUS.
- Pranata, S. P. (2022). The Influence of Lecturer Competence, Lecturer Creativity, and Utilization of E-Learning Media (E-MTU) on Student Understanding at Universitas Mahkota Tricom Unggul During the Covid-19 Pandemic. *Enrichment: Journal of Management*, 12(2), 2285-2292.
- Pranata, S. P. (2023). PERANAN MEDIA SOSIAL TERHADAP PENINGKATAN OMSET UMKM (STUDI KASUS PENJUALAN PAKAIAN BEKAS DI PAJAK MELATI TG. ANOM). *Jurnal Mahkota Bisnis (Makbis)*, 2(1).
- Pranata, S. P., & Sinaga, A. (2023). Analysis of Brand Awareness and Brand Image Strategies on Lake Toba Tourists' Interest through the F1H20 Power Boat Digital Marketing Strategy in Balige, North Tapanuli. *Journal of Business Management and Economic Development*, 1(02), 240-249.
- Prasetyo, Z. A., Budaya, T. N., & Daryanto, B. (2021). Characteristics of Benign Prostatic Hyperplasia (BPH) Patients Undergoing Transurethral Resection of the Prostate (TURP). *Jurnal Kedokteran Brawijaya*, 31(4), 220-223. <https://doi.org/10.21776/ub.jkb.2021.031.04.4>
- Rahman, S. (2016). Pengobatan Hipertrofi Prostat Non Operatif. *Fakultas Kedokteran Universitas Muhammadiyah Sumatera Utara*, September, 12.
- Robert, J. L., Siagian, J. W., Jayadi, T., & Hariatmoko. (2022). Hubungan Usia dengan Benign Prostate Hyperplasia dan Adenokarsinoma Prostat di Rumah Sakit Bethesda Yogyakarta. *Jurnal MedScientiae*, 1(2), 6-11. <https://doi.org/10.36452/jmedscientiae.v1i2.2549>
- Sari, A. R., & Indi, R. D. (2020). Hubungan usia dengan volume kelenjar prostat pada pasien benign prostatic hyperplasia di Rumah Sakit Al-Ihsan Bandung tahun 2018. *Prosiding Kedokteran*, 6(1), 1-4.
- Setyawan, B., & Saleh, I. (2016). Hubungan Gaya Hidup dengan Kejadian Benign Prostatic Hyperplasia di RSUD Dr. Soedarso Pontianak. *Jurnal Mahasiswa Dan Peneliti Kesehatan*, 19.
- Sinaga, S. E. N., & Putri, D. H. (2015). Asuhan Keperawatan Tn."A" Dengan Gangguan Sistem Perkemihan: Post Operasi Prostatektomy. *Jurnal Obstetika Scientia*, 2(2), 178-191.
- Smith Imanuel, S. (2023). Hubungan Derajat Hipertensi dan Usia dengan Derajat Volume Prostat pada Penderita Benign Prostatic Hyperplasia (BPH) di RSUD Dr. H. Abdul Moeloek Provinsi Lampung Tahun 2019-2021. 2021.
- Suryawan, B. (2016). Hubungan Usia Dan Kebiasaan Merokok Terhadap Terjadinya Bph Di Rsud Dr. H. Abdul Moeloek Bandar Lampung Tahun 2015. *Jurnal Medika Malahayati*, 3(2), 102-107.
- Syahwal, M., Dewi, I., Pengajar, S., & Diii, P. (2016). Faktor Resiko Kejadian Benigna Prostat Hiperplasia (BPH) Di Poli Klinik Urologi. *Terapeutik Jurnal*, 23-31.
- Tjahjodjati, Soebadi, D. M., Umbas, R., Purnomo, B. B., Widjanarko, S., Mochtar, C. A., Tarmono, Rasyid, N., Noegroho, B. S., Prasetyawan, W., Danarto, H. R., Warli, S. M., Hamid, A. R. A. H., Syahri, S., & Hakim, L. (2017). Panduan Penatalaksanaan Klinis Pembesaran Prostat Jinak (Benign Prostatic Hyperplasia / BPH). *Ikatan Ahli Urologi Indonesia (IAUI)*, 1-38.
- Tri sujiyati, Handoyo, S. A. N. S. (2010). HUBUNGAN FREKUENSI SEKSUAL TERHADAP KEJADIAN BPH DI RUMAHSAKIT UMUM DAERAH KABUPATEN KEBUMEN. *Jurnal Ilmiah Kesehatan Keperawatan*, 6.
- Wirawan, W., & Kariasa, W. (2020). Pola Penggunaan Obat Sediaan Farmasi Pada Pasien Hypertropy Prostat Di Rsud Undata Provinsi Sulawesi Tengah. *Jurnal Farmaku (Farmasi Muhammadiyah Kuningan)*, 5(2), 39-44. <https://doi.org/10.55093/jurnalfarmaku.v5i2.136>