Review article

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Systemic Review and Critical Analysis of Research Work on Premature Ejaculation

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Abstract:

Premature Ejaculation (PE) is a common male sexual dysfunction. Anxiety & stress are the main triggering factors for PE. In modern science, many researches had been carried out to overcome this problem but still there is no any established line of therapy. In Institute for Post Graduate Training & Reaserch in Ayurveda, Jamangar various works had been carried out on different formulation to treat this condition. The present study deals with systemic review and critical analysis of such 14 research studies.

Keywords: Premature Ejaculation; *Shukragat Vata;* Anxiety, *Vajikarana.*

Introduction

Premature Ejaculation is a common male sexual disorder, affecting on average 40% of men worldwide[1]. The World Health Organization (WHO) 2nd International Consultation on Sexual Health defined it as "persistent or recurrent ejaculation with minimal stimulation before, on or shortly after penetration and before the person wishes it, over which the sufferer has little or no voluntary control which causes the sufferer and / or his partner bother or distress"[2]. An increased susceptibility to premature ejaculation in men from the Indian subcontinent has been reported[3]. Kinsey's observation that Asian men have shorter times to ejaculation than Caucasians, who in turn have shorter times to ejaculation than Afro-Caribbean's, has been interpreted to suggest that some races are more "sexually restrained" than others[4]. The premise that premature ejaculation is a psychosomatic disturbance due to a psychologically overanxious personality was first suggested by Schapiro in 1943. He classified PE as primary (lifelong) or secondary (acquired)[5].

Vajikarana is one of the branches of *Ayurveda* which deals with the preservation and amplification of sexual potency of a healthy man and conception of healthy progeny as well as management of defective semen , disturbed sexual potency and spermatogenesis along with treatment of seminal related disorders in man[6]. *Vajikarana* promotes the sexual capacity and performance as well as improves the physical , psychological and social health of individual[7]. A recent multinational community-based age-ranging study of an unselected "normal" population of 500 heterosexual couples involving stopwatch timing of the intravaginal ejaculatory latency time (IELT) during sexual intercourse, has provided previously lacking normative data[8].

Most of the clinical research studies on sexual dysfunctions dealt in general under the heading of *Klaibya* were carried out at Post graduate and PhD level at IPGT&RA, Jamnagar.

The term *Shukragata Vata* is used in three studies while only one study had been carried out under the term *Shukravruta Vata*. Few studies were conducted to assess the clinical efficacy of single herbs viz. *Erandmula churna*

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(*Ricinus communis* Linn.), *Bramhi* (*Bacopa monnieri* Linn), *Mandukaparni (Centella asatica* Linn.*), Amalaki(Embelica officinalis Gaerten.), and Jatifala (Myrisitca fragrance* Houtt.*)*. Some work establish the efficacy of compound formulations like *Akarkarbhadi Yoga , Rasayana Vati , Manasmitra Vatak , Katafaladi kwath* ; whereas few clinical works were conducted to assess the efficacy of mineral compounds such as *Swarnabhasma , Rasa sindur[9].* A few studies were conducted to evaluate the efficacy of *Shodhana Karma* (bio purification) in Premature Ejaculation & *Basti* and *Shirodhara* proved to be effective in its management.

Systemic review of clinical trials on Premature Ejaculation:

Akarakarabhadi Yoga (*Aakarkarbha*-Anacyclus pyrethrum Linn., *Jatifala -Myrisitca fragrance* Houtt.*)*, showed highly significant improvement ($p< 0.001$) in approximate time taken for ejaculation, completion of coitus and satisfaction of female partner. Better relief was observed in *Agnimandya (*loss of apetite*), Bhrama* (giddiness), *Tamodarshana* (darkness in front of eyes), *Shirashoola* (headache), *Manasa Cancalya* (mental fluctuation), *Kamnivrutti* (loss of libido) *and Heenabhavana* (inferiority complex)[10].

Shukradushti patients treated with 3 compound drugs - 1)*Musalyadi Churna* (*Shewta musali - Asparagus adscendens Roxb. ,Ashvagandha-Withania somnifra Linn*, *Shatavari- Asparagus racemosus Willd.)*, in a dose of 6gms thrice daily with milk (n=14); 2)*Bhallataka Falmajjadi Avaleha (Semecarpus anacardium Linn.)* in a dose of 30 gm in two divided dose/day with milk (n=6); 3) *Narasimha Churna* (*Shatavari - Asparagus racemosus Willd., Gokshur -Tribulus terrestris Linn., Varahi -Dioscorea bulbifera Linn., Bhallatak - Semecarpus anacardium Linn., Chitrak - Plumbago zelynica Linn., Amalaki- Embelia officinalis Gaerten., Masha -Phaseolus mungo Linn.,* milk, sugar, honey & cow's ghee*)* in a dose of 18gms in two divided dose/day with milk (n=6) for duration of 60 days,showed that *Narasimha Churna* provided better result in duration of sexual act and frequency of coitus ($p<0.001$)[11].

Swarna Bhasma (gold element) in a dose of 4mg twice daily for 1 month (n=15) showed that the duration of sexual act was improved by 147.2%; though statistically insignificant. *Aatmagupta Churna (Mucuna pruita Hook.)* in a dose of 3gms twice daily for 1 month (n=12) showed statistically significant result in duration of sexual act ($p<0.001$)[12].

In another clinical study; *Ushir Kwatha (Vetiveria zizanioids Nash.)* and *Sariva Churna (Hemidesmus indicus R.Br.)* when separately administered to the patients of PE; it showed improvement in ejaculatory score in both the groups by 17.86% & 11.09% respectively, however results were statistically insignificant[13].

Bhallataka Vati when administered without *shodhana* (biopurification), and after *shodhana* viz. *Vamana* (emesis) & *Virechana* (purgation), has shown improvement in duration of sexual act by 14.65% ($p<0.001$) and 23.17% ($p<0.05$) respectively[14].

Amalakadi Churna 6gms thrice daily (*Amalaki -Embelia officinalis Gaerten., Kapikacchu -Mucuna pruita Hook., Shatavari -Asparagus racemosus Willd.*) along with *Katphaladi kwatha - Kataphala, Shati, khadir*; 30 ml once daily (n=11) for two months and in another group of 6 patients *Swarna Bhasma* administered 5mg twice daily with milk (30 ml) for same duration showed a comparative better result of 147.2% ($p>0.05$) in comparison to *Amalakadi churna, katphaladi kwatha* combination 47.3% ($p<0.001$)[15].

Baladi Vrushya Basti (*Bala, atibala, Atmagupta, Apamarga, Kalak Dravya,* milk, *jaggery, Tila Tail ,Saindhava)* in the dose of 600 ml once a day for 10 days and after a gap of 1 week same course repeated (n=6), in comparison to *Shatavaryadi yoga* (*Shatavari, Nagbala, Vidari, gokshura, Amalaki)* in the dose of 6gms twice daily with *anupana* of *Ghrita* and milk (n=10); provided better relief in all sexual parameters[16].

A psychotropic drug *Brahmi (Bacopa.monnieri Linn.*) caused highly

significant improvement in performance anxiety (75%) and *Mandukaparni* (*Centella asiatica Urban.*) showed 44.41% improvement in performance anxiety which was statistically insignificant[17].

Erandmula Churna in the dose of 3 gms twice daily with water (n=28) and *Kapikacchu Beeja Churna* was administered in the dose of 3 gms twice daily with water(n=28) for 1 month in separate groups showed that *Erandmula* was better in improving seminal parameters, while Kapikacchu was proved more effective on sexual parameters[18].

In another study three separate drugs were evaluated viz. *Swarna Bhasma* (n=10) 10mg twice daily for 30 days with milk as *Anupana* ; *Kokilaksha Beeja Churna* (n=25) 5gms thrice daily for 30 days and *Ashvagandha Churna* (n=33) 3 gms twice daily for 30 days with milk as *Anupana.* In nut shell, *Ashvagandha* increased sexual desire (28%); erection (23%) and ejaculation score (33%)[19].

Psychological counselling has its own importance in treatment of Premature ejaculation. These patients were subjected to I) Placebo + psychological counselling, II)*Akarakarabhadi* + psychological counselling, III) *Yapanavasti* + *Akarakarabhadi* + psychological counseling. It was observed that reduction in ejaculatory score and improvement in the performance was 36.58%, 49.81% and 55.37% at significant level ($p<0.001$) respectively in these three groups. The number of penile thrusts and duration of sexual act were more than doubled in groups I & II at significant level ($p<0.001$). The number of penile thrusts improved more than 4 times and than 7 times in group III. Analysis of GRISS questionnaire showed that a considerable number of patients (27%) in group III achieved certain voluntary control over ejaculation ($p<0.01$). Performance anxiety was considerably reduced in group II and III (61.29% and 69.80% resepetively) than Group I (45.31%) all at significant levels ($p<0.001$). Satisfaction of partner and self were considerably improved in group III ($p<0.001$) followed by group II and group I. Neither therapy showed any significant changes in seminal parameters. The overall effect of therapy was higher in group III with better percentage of cure and marked improvement as compared to group II and group I[20].

While analyzing the therapeutic efficacy of *Shirodhara* , patients of PE showed that in group A (Placebo - roasted wheat tablets), 12.5% subjects had moderate improvement while 87.5% remained unchanged; while in the group B treated with Tab. *Rasayana Yoga.* (*Brahmi, Gokshura, Guduchi, Amalaki and Jatamansi*), 56.2% subjects showed marked and 43.8% moderate improvement. In group C treated with Tab. *Rasayana Yoga* along with *Shirodhara* (Tila Taila- Seasum oil), 10.5% subjects were cured, 79% showed marked improvement while 10.5% had moderate improvement[21].

In another study carried out on *Akarkarbhadi Yoga* (n=15); it was revealed that the intra-vaginal ejaculatory latency time improved by 50.00%, voluntary control over ejaculation improved by 56.25%,Subjects satisfaction by 79.82%,Partner satisfaction improved by 69.16%, Performance anxiety by 59.37 %,number of penile thrusts improved by 63.73%. Improvement of patient satisfaction, partner's satisfaction and number of penile thrusts were statistically highly significant ($p<0.001$); with significant improvement ($p<0.05$) in IELT. The voluntary control over ejaculation and performance anxiety was significant[22].

Comparing the therapeutic efficacy of *kala basti* it was administered by traditional *basti putak* method (n=6) and Enema pot Method (n=6) in rainy season (*Varsha* and *Pravrit ritu*) with two placebo capsules each of 250 mg twice daily with milk for 30 days (during follow up period) to avoid drop out from study. *Kala Basti* are 16 in number. Out of 16, ten *Anuvasana Basti* with 1 ml of *Erand Taila* were administered in both the groups. The patients were subjected for *Abhyanga* (massage) with *Bala Taila* and *Bashpa Sweda* (steam sudation) prior to administration of *Basti* in both the groups.*Basti* given by *Basti putak* significantly increased the erectile function by 75%, sexual desire by 73.33%, ejaculatory

function by 72.22%, frequency of coitus by 60%, duration of coitus by 35%. Whereas , Basti given by Enema pot increase the erectile function by 53.33%, sexual desire by 68.75%, ejaculatory function by 52.63%, frequency of coitus by 45.45%, duration of coitus by 25.64%.Hence *Basti putak* Traditional method showed excellent result in all sexual parameters compare to *Basti* given by Enema pot method[23].

Discussion and Conclusion

Premature ejaculation (PE) is a common male sexual disorder. Recent normative data suggests that men with an intravaginal ejaculatory latency time (IELT) of less than 1 minute have "definite" PE, while men with IELTs between 1 and 1.5 minutes have "probable" PE. Although there is insufficient empirical evidence to identify the etiology of PE, there is limited correlational evidence to suggest that men with PE have high levels of sexual anxiety. An increased susceptibility to premature ejaculation in men from the Indian subcontinent has been reported[24]. Anxiety has been reported as a cause of PE by multiple authors and is entrenched in the folklore of sexual medicine as its most likely cause despite scant empirical research evidence to support any causal role[25]. Recent data demonstrates that almost half of the men with Erectile Dysfunction also experience PE[26]. Men with early ED may intentionally "rush" sexual intercourse to prevent premature loss of their erection and ejaculate with a brief latency. This may be compounded by the presence of high levels of performance anxiety related to their ED which serves to only worsen their prematurity. In the absence of a thorough sexual history, these men may be incorrectly diagnosed as suffering from PE and not the underlying ED.

In *Ayurveda* this clinical condition can be correlated with *Shukragata Vata[*27]. Few research works had been done under the title of *Shukragata Vata*. Whereas some scholar correlate PE with *Shukra avruta Vata*.

The line of management described by *Acharyas* for *Shukragata vata* in the classics is more or less same. *Praharsha anna*, *balya* and *Shukrakara drugs* should be administered in *Shukragata vata*. If *Shukra* is *vibadhamarga* (obstructed), *virecana* should be performed. After *virecana* the above line of treatment should be done[28]. The treatment of *Shukradosha* can be adopted in *Shukragata vata[*29]. The treatment explained in the '*putrakasmeeya*' chapter can be employed in the management of *shukragata vata[*30]. Psychological counselling is also prime important while treating PE, because anxiety is main factor that trigger PE[31]. Existing definitions of PE include distress as an important dimension of PE[32].

Pharmacological modulation of ejaculatory threshold represents a novel and refreshing approach to the treatment of PE and a radical departure from the psychosexual model of treatment, previously regarded as the cornerstone of treatment. The introduction of SSRIs has revolutionized the approach to and treatment of PE. SSRIs consist of five compounds citalopram, fluoxetine, fluvoxamine, paroxetine and sertraline with a similar pharmacological mechanism of action.

Systemic review of 14 clinical trials on sexual parameters carried out in IPGT &RA; Gujarat Ayurved University showed that Ayurvedic treatment would be more helpful in the management of Premature Ejaculation. Most of the drugs, used in the studies, have the properties like *vrishya, balya, medhya and shukrastambhakarak*. The *Swarna Bhasma* has the qualities like *snigdha guna, Madhur Vipaka, Sarva doshaharatva, Vrushya, Medhya*; *Pushtikara[*33]. *Swarna Bhasma* has qualities like *Ojodhatu vivardhana* and *balakara[*34].

Most of the drugs having anti- stress, anti-oxidant properties; which is helpful in relieving anxiety which is major factor of PE. Most of the *vajikaran bastis* are rich in amino acid, lipid, and sugar, enzymes which are very essential in the production of steroidal hormones and provide nourishment to whole body.

By all these facts, further studies need to include biomarkers and other latest parameters for proper assessment of *Ayurvedic* management in Premature Ejaculation. *Dipana, Pachana*, and *Shodhana* should be given systematically before the administration of *Vrushya* drugs for the better outcome in the management of Premature Ejaculation.

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