



Research article

Common electrotherapy modalities used in physiotherapy setup in wardha district

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ABSTRACT

Electrotherapy is a natural way to treat pain with energy. Various modalities are used for different conditions in different areas while some of the modalities used in conditions that are commonly used. Electrotherapy modalities used in physiotherapy setup are therapeutic Interferential (IFT), ultrasound, Transcutaneous electrical nerve stimulators, muscle stimulators Electricity, Heat fermentation, Cryotherapy, IRR, UVR SWD. Electrophysical agents used to carry physiological effects, and it is these changes that bring the benefits of therapy than the modality itself. Protocol clinical decisions using the available evidence must allow the most appropriate modalities to be employed for a particular patient. Physiotherapy clinics was selected randomly for Wardha district. An appropriate questionnaire was been prepared for analysis of most commonly use electrotherapy modalities in physiotherapy setups in Wardha district. The questionnaire consists of 12 questions in which we compare the most common electrotherapy modalities suggested by the surgeon and modality used by the therapist. Result of this study show that the physiotherapists most commonly use Heat fermentation and the surgeons most commonly prescribe the IFT modality in Wardha district. This study conclude that significant use of common electrotherapy modalities used in clinical setups of physiotherapy in Wardha district.

Keywords: Electrotherapy, Physiotherapy, Modalities, Interferential Therapy, Hot Pack.

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INTRODUCTION

Electrotherapy is a way of treating pain naturally with the help of energy ^[1]. It has become a major component of physiotherapy machines since its early periods. With time, good physiotherapy equipment has undergone tremendous amount of change and continue to do so. There modalities and tools designed specifically for them to treat a variation of small, great for chronic pain ^[2], wounds, as well as pain ^[3]. All it requires is the right method, at the correct time for the correct reason.

Electrotherapy modalities used to help in reducing the pain and the natural healing response through increased energy (electricity, sound, light, magnetism, temperature) ^[4]. The different modalities used for different conditions while some works best when used in combination with others. Ultra-care pro deals are five modalities such as ultrasound therapy, tens therapy, physiotherapy IFT, electrical muscle stimulation along with pelvic and facial stimulation on different devices, namely, US 111, Sonictens and Combo3 plus for individual or professional use ^[5].

The electrotherapy modalities used in physiotherapy setups are Interferential therapy (IFT), Ultrasound, Transcutaneous electrical

nerve stimulator, Electrical muscle stimulator, Heat fermentation, Cryotherapy, IRR, UVR, SWD. In spite of the fact that electrotherapy has a built-up job in the act of physiotherapy, the present idea that influence the use of the proposed fluctuated generally. It is said that there is a spot for electrotherapy modalities in modern execution, and some fundamental standards are viewed as along with progressively explicit data about the two modalities, to be specific, ultrasound and therapeutic interference.

Electrophysical specialists used to convey physiological impacts, and it is these progressions that bring the advantages of treatment than the methodology itself. Convention choices utilizing proof gave should empower the most suitable modalities to be utilized for a specific patient. Aimless utilization of electrotherapy is probably not going to produce noteworthy advantages, anyway utilized at the perfect time, it can possibly accomplish useful impact. Persistent administration programs that consolidate manual treatment , practice treatment ^[6]. The rationale for studying the modalities of electrotherapy commonly used in the manufacture of electrotherapy in Wardha district.

METHODOLOGY

The methodology of our research was survey on the most commonly used modalities in physiotherapy setup in Wardha district. It is an observational study involving simple random sampling technique. Clinics of physiotherapy present in Wardha district with 30 physiotherapy setups. The inclusion criteria were private clinics, private hospitals and government hospitals and the exclusion criteria were physiotherapy unit other than private clinics and government hospital.

The Physiotherapy clinics was selected randomly from the Wardha district. An appropriate questionnaire was prepared for analysis of most commonly used electrotherapy modalities in physiotherapy setups in Wardha district.

The data was collected from the 30 setups of physiotherapy clinic and is computed by using appropriate statistical tool. The sample size was calculated according to the number of physiotherapy units present in Wardha districts and then the units were randomly selected for the survey.

RESULT

Result of this study show that the physiotherapists most commonly use Heat fermentation and the surgeons most commonly prescribe the IFT modality in Wardha district.

Figure 1. Distribution of patients according to most common modalities

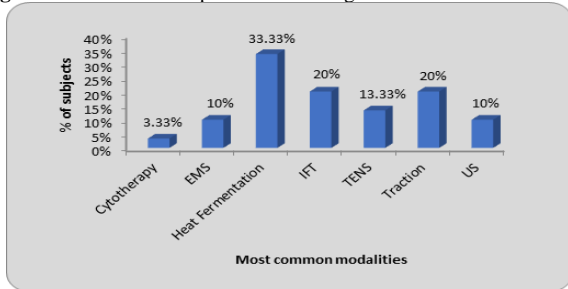
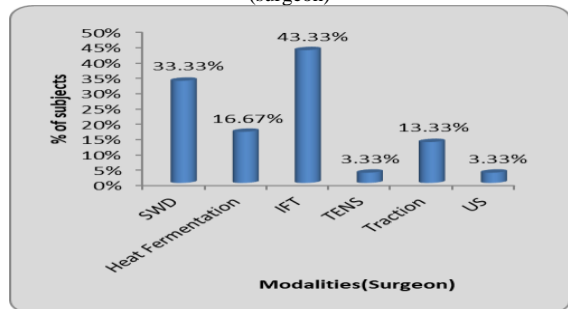


Figure 2: Distribution of patients according to most common modalities (surgeon)



Graph 3: Distribution of patients according to common pathology

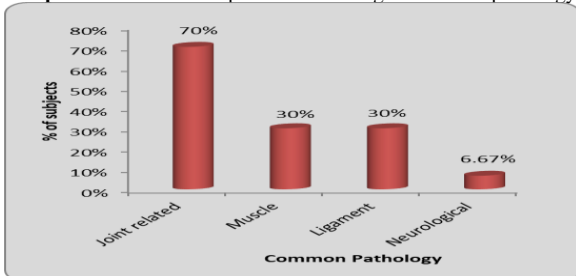


Figure 4: Distribution of patients according to modalities for chronic condition

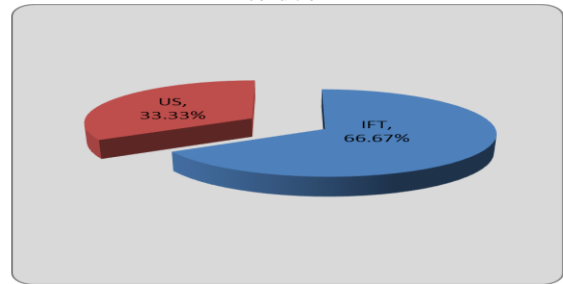


Figure 5: Distribution of patients according to recovery in acute condition

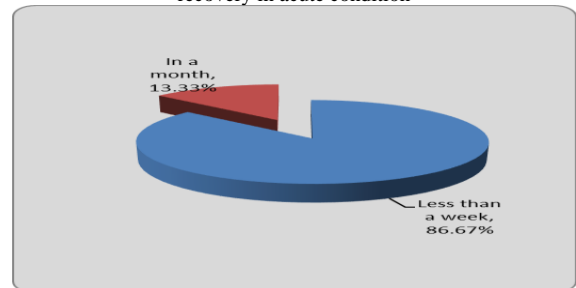
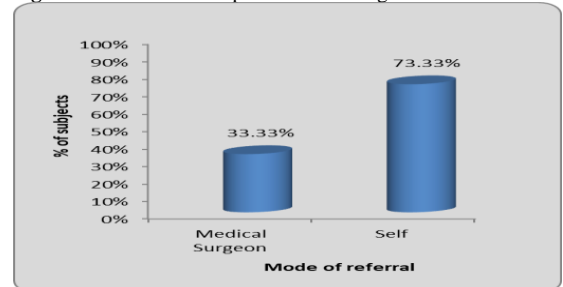


Figure 6: Distribution of patients according to mode of referrals



DISCUSSION

Our study shows the significant study of most commonly used electrotherapy modalities in Wardha district. The data on the basis of the analysis of common electrotherapy modalities used according to the physiotherapist shows that heat fermentation is used commonly of about 33.33% and the analysis of common electrotherapy modalities prescribed according to the surgeon shows that IFT is used commonly of about 43.33%. Electrotherapy is a typical treatment intercession controlled by physiotherapists. Inferable from an absence of logical announcing of methodology use, it was the reason for this investigation to study every single private professional enlisted inside the Province of Alberta. An aggregate of 208 clinicians speaking to 41% of the populace test, reacted to the study. Results demonstrated hot fermentation followed by ultrasound (US), cryotherapy, transcutaneous electrical nerve incitement (TENS) and interferential were the most, much of the time utilized modalities [7]. EMS is given to the affected muscles to facilitate effective muscle education [8] [9]. Cryotherapy with ice packs was given to control pain and muscular spasm [10] [11]. With the exception of ultrasound, these findings differed considerably from previous reports of modality usage. Statistical comparisons, using Fisher's exact test of independence, disclosed often

use of Transcutaneous Electrical Nerve Stimulation was vast amongst older clinicians as well as clinic owners ($p < 0.05$) while male therapists used biofeedback more often than female colleagues ($p < 0.05$). No critical dissimilarities were found between advisors prepared at the University of Alberta and those informed somewhere else. Friend impact inside the topographically and politically characterized test populace may clarify the generally not many between-bunch contrasts. Future research should focus on extra populace tests in addition to keep on checking patterns inside recently examined gatherings [12].

Interferential Therapy (IFT)/(IFC) has been generally utilized within treatment for a long time. Its utilization is presumably lopsided to both the volume and the nature of the distributed proof, however it is unequivocally bolstered on a recounted proof level, and a few surveys are demonstrating a general strong proof base, particularly for pain based administration (e.g. Fuentes et al, 2010).⁸ IFT is broadly used for pain relief, muscle stimulation, elevated local blood flow and depletion of edema. This therapy has been studied extensively and its effective relief of pain in musculoskeletal conditions has been described, Keramat Ullah Keramat and Aisling Gaughran [13].

The essential rule of Interferential Therapy is to use the huge physiological impacts of low recurrence (<250pps) electrical incitement of nerves without the related excruciating as well as to some degree horrendous reactions some of the time related with low frequency stimulation [14].

Treatment times fluctuate generally as indicated by the typical clinical parameters of intense/ constant state and the sort of physiological impact wanted. In intense states, shorter treatment times of 5-10 minutes might be adequate to accomplish the impact. In different conditions, it might be important to stimulate the tissues for 20-30 minutes [15].

In the USA, Interferential Therapy is endorsed for the suggestive help and the executives of constant (long haul) unmanageable, post-traumatic and post-surgical pain. Numerous of clinical experts use Interferential Therapy for its medication free, non-obtrusive advancement of recuperating and help with discomfort. IFT in physiotherapy has gotten unbelievably famous because of the usability, absence of symptoms and the astonishing input from individuals experiencing a wide range of conditions [16]. Since the palliative care primarily revolves around giving pain relief, TENS and IFT could be of great benefit [17].

Interferential current treatment is a successful treatment alternative utilized by numerous facilities of physiotherapy to decrease pain and speed the healing procedure yourself, recovering your body to a sound, torment free. High-recurrence signals from IFC infiltrate through the skin into the more profound lying muscle tissue. The Irish

Medical Journal distributed a synopsis of the exploration in 1989 about the "interferential treatment for the treatment of stress and urge irregularities" [18].

An interferential current therapy device is a most commonly found electrotherapy machine in today's physiotherapy applications, according to the article of Dr. E. Logesh, MSPT (MPT), BPTTh/BPT Physiotherapy [16].

Adedoyin, R. A., et al. (2002). Demonstrated that the Result of interferential current(IFC) incitement in treatment of osteoarthritic knee torment and is usually utilized, Physiotherapy [19]. Fuentes JP, Armijo Olivo S, Magee DJ, et al. showed the Result of interferential current therapy(IFC) in the treatment of musculoskeletal agony: a structured evaluation and meta-evaluation [20]. Christie, A. D. and G. L. Willoughby (1990). Showed that the consequence of IFT on expanding following open exhaustion and inside obsession of lower leg breaks." Fuentes, J. P. et al (2010). Demonstrated the achievement of Interferential Current (IFC) in the Treatment of Musculoskeletal Pain: A Structures evaluation and Meta-evaluation." Gundog, M. et al. (2012). Demonstrated that Interferential current therapy (IFT) in patients with knee osteoarthritis: assessment of the sufficiency of different plentifulness coordinated frequencies. Johnson, M. I. and G. Tabasam (2003), showed that a conclusion into the pain relieving consequence of different frequencies of the sufficiency regulated influx of interferential current treatment on chilly incited pain in ordinary subjects.

Ronald S. Greenberg, M.A., 1972, the relative impacts on nearby blood stream of hot packs, gentle rhythmical exercise, and a combination of hot pack and exercise were estimated by intense venous impediment plethysmography on ten sound human subjects. Skin temperature was assessed during utilization of warmth.

Hot packs are a type of physical modality frequently used in physical therapy setups shows the article by Laura Inverarity, DO, Updated on November 30, 2019 [21]. Moist warmth is diverse kind of shallow warmth treatment, and in dominant part of the cases advisors basically apply clammy hot packs to harmed regions, Dynatronics [22]. Heat fermentation, or heat implementation, is commonly utilized in the second period of recovery to raise blood stream and hoist recuperating in the harmed territory [23].

Superficial heat can create warming impacts at a profundity limited to 1-2cm. More profound tissues are typically not warmed because of the warm protection of subcutaneous fat and the raised cutaneous blood stream which scatters heat by Gerard Malanga, MD [24]. The use of the therapeutic heat in the management of different conditions has been around for thousands of years. Understanding the physiological and biomechanical principles of therapeutic heat is one of the elements of successful patient treatment [25][26].

CONCLUSION

This study concluded that significant use of common electrotherapy modalities used in clinical setups of physiotherapy in Wardha district.

This study show that the physiotherapists most commonly use Heat fermentation and the surgeons most commonly prescribe the IFT modality in Wardha district and the above discussion also shows that the Interferential therapy and the Heat fermentation are the most commonly used modalities for the treatment of both chronic as well as acute conditions. And the other modalities used are Traction, Ultrasound, TENS, Cryotherapy.

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