WORLD JOURNAL OF ADVANCED SCIENTIFIC RESEARCH

Patient adherence to the prescribed medicine therapy - Transdermal pain relief patch v/s Oral Intake

Dr. M. C. Prasant*, Dr. Indrayani Deole, Dr. Akankasha Chaurasia****

*Professor and Head, Dept Oral and Maxillofacial Surgery, R.K.D.F. Dental College and Research Centre, Bhopal, Madhya Pradesh, Bhopal.

**Resident, Dept Oral and Maxillofacial Surgery, R.K.D.F. Dental College and Research Centre, Bhopal, Madhya Pradesh, Bhopal.

Abstract

Non adherence of a medical therapy primarily due to negligence and secondarily due to various reasons as listed in the questionnaire were given by the patients who received dental treatment. This negligence and inability of the patient to administer oral drugs leads to avoidance of treatment, which in turn leads to deterioration of oral health [1]. Patients in such conditions cannot receive the same results as compared to patients who adhere to a given therapy and this in turn affects the dentist's work.[2]

Background

The subject of non-adherence to medication therapy has been co-related with less than the desired outcomes in a given therapy. If not dealt with this attitude of the patients, soon it might become a problem.

Materials and method

A questionnaire was conducted in the dept of Oral and Maxillofacial Surgery, R.K.D.F. Dental College and Research Centre, Bhopal to understand whether the patients prefer oral administration or transdermal patches for pain relief after extraction of mobile teeth.

Result

Patients adhered to transdermal patch for pain relief more as compared to oral administration of the pain-relieving drugs given to the other group

Conclusion

The adherence of patients to drug therapy was slightly more in the transdermal patch group as compared to the orally administered group

Keywords

Adherence, drug therapy, orally administered medication, pain relieving patch

Aim

To investigate the adherence of the patients to their drug therapy through the use of transdermal pain-relieving patch as compared to that of taking the medications orally

Introduction

Non adherence to medication has been described as a world wide problem of striking magnitude[3]

It has been shown to lead to reduced health outcomes and increased health care costs due to relapses and complications[4]

The importance of the issue has resulted in a number of studies that investigate the determinants of patient's decision not to follow recommendations.

During the last few years, there has been an increasing interest to understand how the doctor patient relationship may affectpatient's decision to adhere to medical recommendations evidence at the patient level identify the number of problems in the area.[5]

Expectations for communication and participation during the encounter[6] misunderstandings between the two parties[7] and different agendas that are not met during the consultation[8] are a few examples of the challenging aspects of the doctor patient relationship that may lead to non-adherence to medication.

Adherence to a medical regimen is generally defined as the extent to which patients take medications as prescribed by their health care providers. The word "adherence" is preferred by many health care providers, because "compliance" suggests that the patient is passively following the doctor's orders and that the treatment plan is not based on a therapeutic alliance or contract established between the patient and the physician. Both terms are imperfect and uninformative descriptions of medication-taking behaviour.[9]

Unfortunately, applying these terms to patients who do not consume every pill at the desired time can stigmatize these patients in their future relationships with health care providers[10]

In today's world there are various techniques to relieve pain [11]

Not necessary by administering orally, Sub cutaneous, Intra venous, etc. medications.

Today it is not even important to take allopathy medications for relieving mild to moderate pain. To relieve pain by taking medications can be as compliant and easy as to apply transdermal patches.[12] These can be working systemically or locally.

There is overuse and abuse of the pain relieving medications [13] available in the market may it be opioids or Non-steroidal anti-inflammatory drugs.

In this era where the population is not aware of whether science is a curse or a boon, it is necessary to limit the adverse effects and dependency of a patient on pain-killers[14].

It can be done by using trans dermal patches [15] which establish the purpose of not overusing and only necessary using of the drugs available in the market.

This is in turn going to give a better standard of living to the society.

Inclusion criteria

Age 20 to 50

Patients undergoing surgical extraction of mobile teeth

Exclusion criteria

Local inflammation

Local pathology

Local carcinoma

Patients on pain threshold lowering drugs

Use of tobacco in any form

Immunocompromised individuals

Pregnant women

Patients with hereditary blood conditions

Method

500 patients randomly were selected from the departmental OPD in the oral and maxillofacial surgery in R.K.D.F. Dental college and Research centre, Bhopal, M.P. who underwent the process of extraction of mobile teeth.

Pain after this procedure in the half that is 250 patients wasrelieved by using transdermal pain-relieving patch and the other half patients were given oral administration of NSAIDs.

At the time of the next recall, the patients were given a questionnaire to state the adherence of their drug therapy.

Result

The group of patients prefer transdermal patch for pain relief as compared to oral administration of the pain relieving drugs

Discussion

Poor adherence to medication regimens is common, contributing to substantial worsening of disease, death, and increased health care costs. Practitioners should always look for poor adherence and can enhance adherence by emphasizing the value of a patient's regimen, making the regimen simple, and customizing the regimen to the patient's lifestyle. Asking patients non judgmentally about medication-taking behaviour is a practical strategy for identifying poor adherence. A collaborative approach to care augments adherence. Patients who have difficulty maintaining adequate adherence need more intensive strategies than do patients who have less difficulty with adherence, a more forgiving medication regimen, or both. Innovative methods of managing chronic diseases have had some success in improving adherence when a regimen has been difficult to follow.[16],[17],[18],[19].

New technologies such as reminders through cell phones and personal digital assistants and pillboxes with paging systems may be needed to help patients who have the most difficulty meeting the goals of a regimen.

The way people perceive the doctor's role in prescribing was a significant predictor of non-adherence as shown from the analysis. Non-adherence increased with the belief that when people are sure of the medicine, they want the doctor should prescribe it, as well as with the disappointment of leaving the doctor's clinic without a prescription. On a first level, this may seem an oxymoron. Yet, it underlines possible unmet expectations from the patient's side; whenhefeelsthatthe doctordoesnot give himwhathebelieveshe needs he is more likely not to follow her recommendations when made. Hence, that requires that when the doctor ends the consultation, she needs to make explicit not only the reasons why she prescribes a medication but also the reasons why she may not. From the control variables, the most interesting result is the impact of institutional factors, i.e. the ability to choose a doctor. This is particularly valuable in view of the limited evidence in the area. A possible interpretation lies in what the theoretical models of health behaviour, including the Theory of Reasoned Action [20] and Planned Behaviour [21], define as 'perceived control'. Being able to choose the doctor may be perceived by the individuals as a way of having control over their own care. Another explanation may be the fact that more choice improves satisfaction with the consultation and consequently may lead to better adherence to recommendations. Indeed, some evidence supports this explanation as it shows that the patient's opportunity to select their personal physician may influence subsequent satisfaction with recommendations [22].

Conclusion

The adherence of patients to drug therapy was slightly more in the transdermal patch group as compared to the orally administered group

References

1. Katarzyna Skośkiewicz-Malinowska; Oral health condition and occurrence of depression in the elderly; Medicine (Baltimore). 2018 Oct; 97(41): e12490.
2. David M. Studdert, Medical Malpractice Implications of Alternative Medicine Health Law and Ethics November 1998;280(18):1610-1615.
3. WHO? Adherence to long-term therapies: evidence for action. Geneva; 2003
4. Hodgson T, Cai L. Medical care expenditure for hypertension, its complications, and its comorbidities. Med Care 2001; 39:599–615.
5. Britten N, Barry CA, Barber N, Bradley CP. Misunderstandings in prescribing decisions in general practice: qualitative study. Brit Med J 2000; 320:484–8.
6. Jenkins L, Britten N, Stevenson F, Barber N, Bradley C. Developing and using quantitative instruments for measuring doctor–patient communication about drugs. Patient Educ Couns 2003; 50:273–8.
7. Farber HJ, Capra AM, Finkelstein JA, Lozano P, Quesenberry CP, Jensvold NG, et al. Misunderstanding of asthma controller medications: association with nonadherence. J Asthma 2003; 40:17–25.
8. Barry CA, Bradley CP, Britten N, Stevenson FA, Barber N. Patients' unvoiced agendas in general practice consultations: qualitative study. Brit Med J 2000; 320:1246–50.
9. The new england journal of medicine review article drug therapy. Adherence to Medication Lars Osterberg, M.D., and Terrence Blaschke, M.D.
10. Steiner JF, Earnest MA. The language of medication-taking. Ann Intern Med 2000; 132:926-30.

11. MIMI M. Y. TSE BSN et al; journal of clinical nursing; The effect of visual stimuli on pain threshold and tolerance; Volume11, Issue4;July 2002;Pages 462-469

12. Gary Small et al; A review of compliance to treatment in Alzheimer's disease: potential benefits of a transdermal patch current medical research and opinion Pages 2705-2713

13. Hans-Christoph Diener et al;Analgesic/abortive overuse and misuse in chronic daily headache; December 2001, Volume 5, Issue 6, pp 545–550

14. Henry Mc Quay et al; Opioids in pain management; lancet; Volume 353, Issue 9171, 26 June 1999, Pages 2229-2232

15. Marc B. Brown et al; journal of drug delivery; Dermal and Transdermal Drug Delivery Systems: Current and Future Prospects; pages 175-187

16. Molassiotis A, Lopez-Nahas V, Chung WY, Lam SW. A pilot study of the effects of a behavioural intervention on treatment adherence in HIV-infected patients. AIDS Care 2003; 15:125-35.

17. Weingarten SR, Henning JM, Badamgarav E, et al. Interventions used in disease management programmes for patients with chronic illness — which one's work? Metaanalysis of published reports. BMJ 2002; 325:925-8.

18. Ofman JJ, Badamgarav E, Henning JM, et al. Does disease management improve clinical and economic outcomes in patients with chronic diseases? A systematic review. Am J Med 2004; 117:182-92.

19. Farris KB, Cote I, Feeny D, et al. Enhancing primary care for complex patients: demonstration project using multidisciplinary teams. Can Fam Physician 2004;50: 998-1003.

20. Ajzen I, Fishbein M. Understanding attitudes and predicting social behavior. Englewood Cliffs: Prentice-Hall; 1980.

21. Ajzen I. From intentions to actions: a theory of planned behaviour. In: Kuhl J, Beckmann J, editors. Action-control: from cognition to behaviour. Heidelberg: Springer-Verlag; 1985.
22. Schmittdiel J, Selby JV, Grumbach K, Quesenberry Jr CP. Choice of a personal physician and patient satisfaction in a health maintenance organization. J Am Med Assoc 1997; 278:1596–9.