Benefits of aromatherapy on the quality of sleep of the elderly

Emeline Mudric Advanced Practice Nurse student, University of Lorraine

INTRODUCTION

The quality of sleep is important for maintaining a good state of health.
Sleep disorders in the elderly as well as self-medication with hypnotics are common.
Hypnotics are not recommended for elderly.
It is best to replace them with natural methods.
Aromatherapy is a so-called natural medicine that uses natural plant extracts to promote health and well-being.
It is especially used to manage pain, improve the quality of sleep, reduce stress and anxiety.

The prupose of this study is to determine whether aromatherapy can improve the sleep quality of the elderly

The research question is: the use of aromatherapy is it effective to fight against sleep disorders of the elderly ?

METHODS

A selection of **four** articles was made from the medical articles available on Pubmed.
In order to carry out this research, the key words **AROMATHERAPY**, **EDERLY,** and **SLEEP** were used.
The publication date of the articles is between 2013 and 2018.
Inclusion criteria were the use of the same essential oil in each study (lavender) and a duration of study of 7 days or more.

RESULTS

After aromatherapy by lavender use:

- ❖significant improvement in the quality of slepp (Figure 1 and 2)
- ❖stated that they woke up rested in the morning
- ❖ the anxiety level decreased
- ❖no significant difference in the sleep duration

Figure 2: The Pittsburgh Sleep Quality Index (PSQI), an effective instrument used to measure sleep quality and habits. A final total score of 5 or more indicates poor sleep quality.

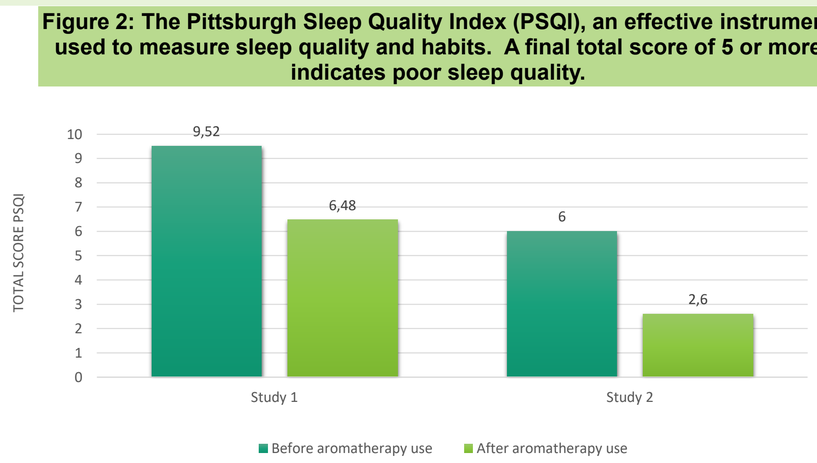
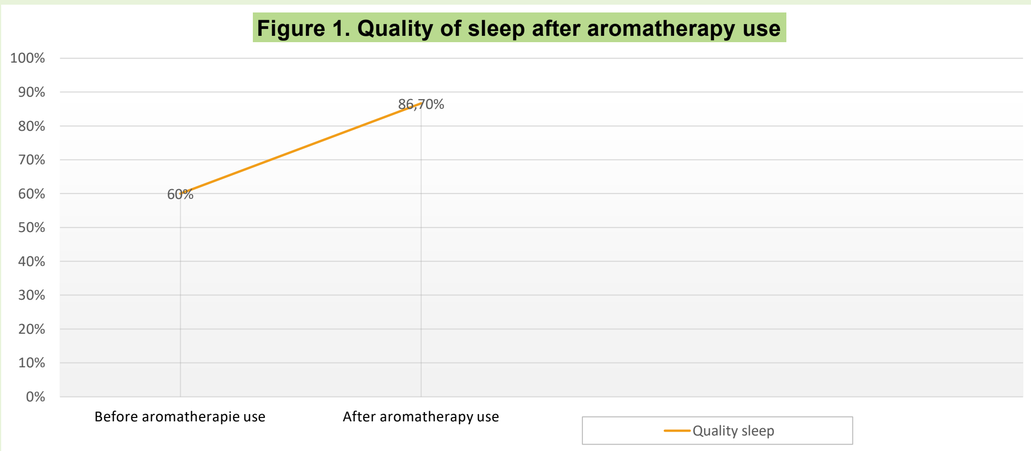


Figure 1. Quality of sleep after aromatherapy use



CONCLUSION

In fact, there are few studies on the beneficial effects of aromatherapy on sleep, especially in the elderly.
These four studies show us that the use of essential oils, especially lavender, can help improve the quality of users' sleep.
The use of lavender essential oil is simple, inexpensive and non-invasive.
It may allow a decrease in medication for sleeping which is not recommended for the elderly.

FACULTÉ de MÉDECINE NANCY

UNIVERSITÉ DE LORRAINE

The consequences of smoking on kidney transplant

MARCOT Céline - Advanced Practice Nursing Student - December 2019

Introduction

In France, every year more than 10,500 people start a renal replacement treatment by dialysis or transplantation. In 2017, 3782 patients with chronic end-stage renal failure (CRTI) benefited from kidney transplantation. In the same year, more than 1116 transplants stopped working and 891 transplants died (1). The loss of these grafts have several origins and one of them is tobacco. The links between smoking and loss of graft have been studied. That is why, I sought to identify the mechanisms of the action of smoking and their consequences on the transplant in order to establish the real impact.

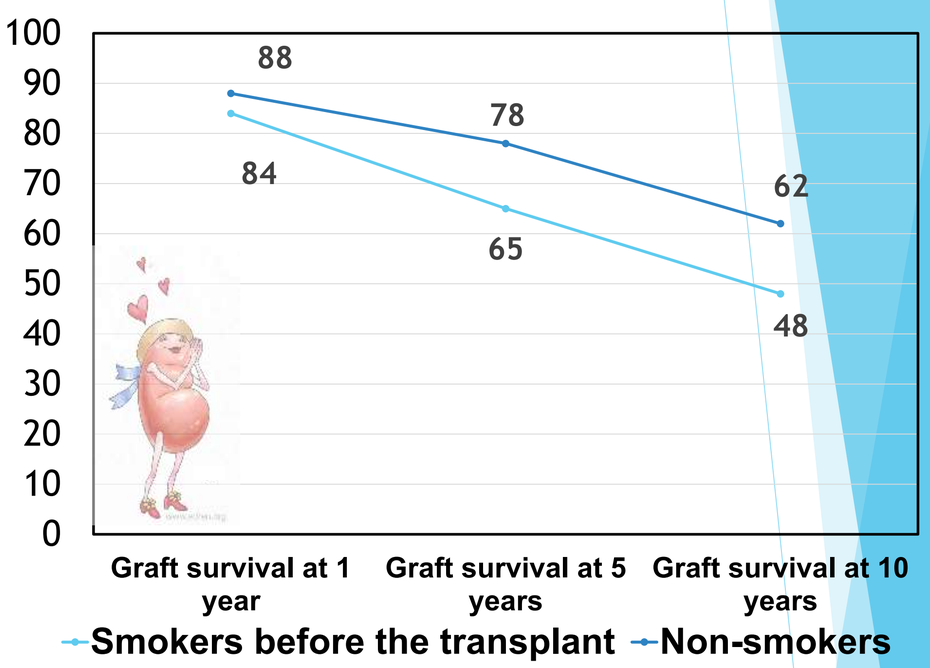
Methods

A search was conducted in Pub Med and Science Direct for resources published between 2000 and 2019 in English and French. The keywords “smoking” AND “kidney transplantation” were used in all relevant combinations, and inclusion criteria were : “free full text”, “mini reviews”, “articles” . The exclusion criteria were : “children”, “dialysis”. This yielded a total of 50 records, from which we included 6 for concordance with the subject of this poster or for their geographic diversity after evaluation. A French epidemiology register concerning renal failure has also been used.

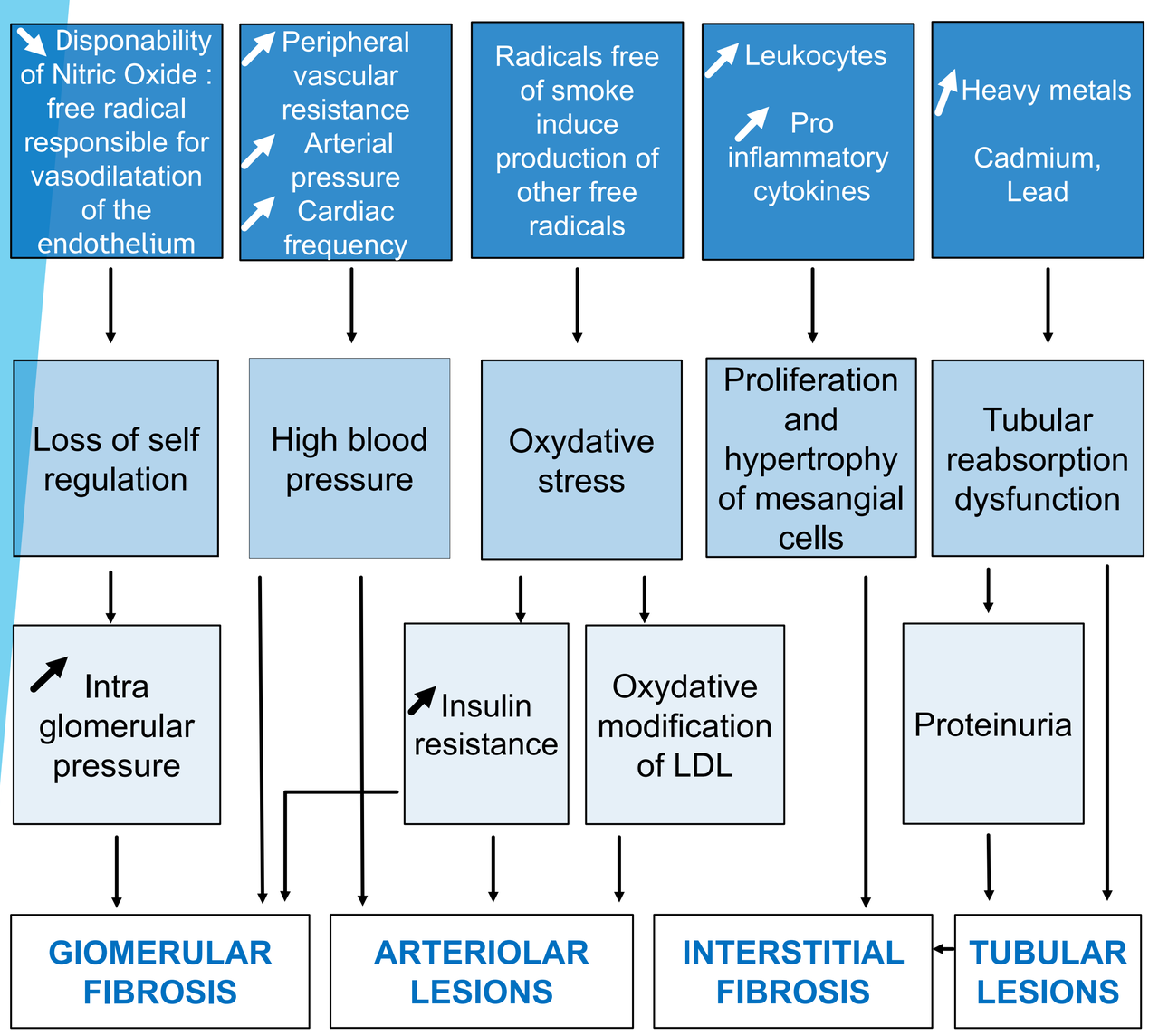
Results

The main cause of late graft loss is the chronic allograft nephropathy (CAN).
It is anatomically determined by tubular atrophy, interstitial fibrosis, glomerular fibrosis and microvascular fibrous thickening of the intimal lesions.
Smoking can be responsible of the four types of lesions defining the CAN. It is therefore one of the factors in setting up or aggravating chronic allograft nephropathy leading to the loss of the renal graft.

Graft survival and smoking status



Consequences of smoking on the kidney transplant



Aggravation chronic kidney

Smoking causes a fourfold higher risk of severe fibrous thickening of the intima of renal arterioles. (2)

Sung (3) found a fibrous thickening of the intima in only four to six years of smoking 3.1 packs / year.

Kasiske (4) demonstrates that smoking more than 25 packs / year during transplant increases the risk of transplant failure by 30%. But the good thing is that smoking cessation 5 years before transplant reduces the risk of transplant failure by 34%.

Tobacco is a modifiable risk factor. It must be considered as such and mobilize all necessary means to achieve the cessation of smocking before transplantation.
Aref (5) concludes his analysis by saying that transplant recipients must be interested in smoking cessation programs.
Khalil (6) recommends stopping smoking at least 6 weeks before surgery

Conclusion

Some of the 1116 grafts lost in 2017 are due to tobacco. Tobacco causes chronic kidney disease and chronic allograft nephropathy is the leading cause of late graft loss. At a time when health policies are trying to improve the accessibility of transplantation, it is important to find effective solutions to integrate smoking cessation into the management of kidney transplant patients and thus allow for a longer survival of the transplant.

References :
1. Rapport-rein-2017.pdf
2. Zitt N, Kollerits B, Neyer U, Mark W, Heininger D, Mayer G, et al. Cigarette smoking and chronic allograft nephropathy. Nephrol Dial Transplant
3. Sung RS, Althoen M, Howell TA, Ojo AO, Merion RM. Excess risk of renal allograft loss associated with cigarette smoking. Transplantation
4. Kasiske BL, Klinger D. Cigarette Smoking in Renal Transplant Recipients. J Am Soc Nephrol
5. Aref A, Sharma A, Halawa A. Smoking in Renal Transplantation; Facts Beyond Myth. World J Transplant
6. Khalil MAM, Tan J, Khamis S, Khalil MA, Azmat R, Ullah AR. Cigarette Smoking and Its Hazards in Kidney Transplantation. Adv Med

KIDNEY TRANSPLANTATION :

Why give priority to living donor transplant?

Sophie BLONDEL Nurse , advanced practice student

INTRODUCTION

Kidney transplantant is the best treatment for patients with end-stage kidney desease. It improves the quality of life of patients and increases their life expectancy. The survival of the recipient is superior to that of dialysis.(fig 1)

However, access to transplantation is difficult. There is a shortage of grafts and the number of patients waiting for a kidney transplant is increasing.(fig 2)

To access the transplantation, 3 types of transplantation are possible: transplant with a deceased donor into brain death, a deceased donor after cardiac arrest (unexpected or after stopping the treatment) and transplantation with a living donor.

Living donor (LD) kidney transplant is the oldest technique of transplantation. It accounts for about 15% of kidney transplant activity, compared to 40% in the United States. In 2017, 611 live donor transplants were performed.

Why live donor transplantion need to be developed?

I am to demonstrate that live donor renal transplantation provides better results than a transplant with a deceased donor. And showhow the quality of a living donor transplant is the best.

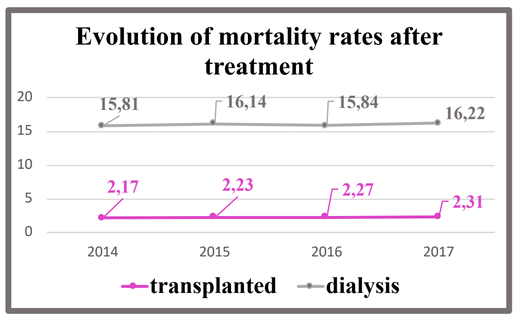


Fig 1 (Source: bio medicine agency)

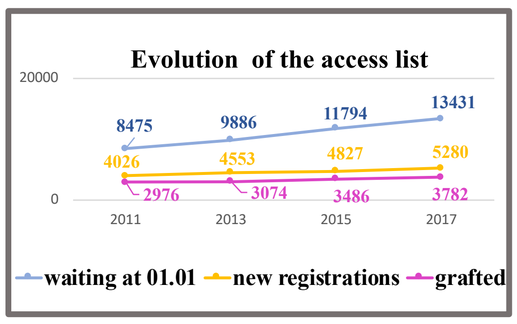


Fig 2 (Source: bio medicine agency)

METHOD

A literature search was conducted with Google Scholar and in the gray literature from 2008. The keywords: kidney transplant AND living donor ; "graft survival" AND deceased or living donor were used in all relevant combinations. Inclusion criteria are centered on the recipient and the benefits of a live transplant for the recipient. Exclusion criteria are based on donor data (surgical aspect, follow-up after donation)

RESULTS

Whatever the donor, his age, his compatibility with the recipient, the survival of the living donor's transplant is significantly better than that of a deceased donor.

The success of living donor transplantation is influenced by the same factors as a deceased donor transplant, namely: acute rejection, age, and pre-transplant immunization of the recipient before the transplantation. On the other hand, the literature is unanimous when the donor is a member of the identical HLA siblings, the survival of the graft is always superior.

The benefits of a living donor are assessed on life expectancy and graft quality.

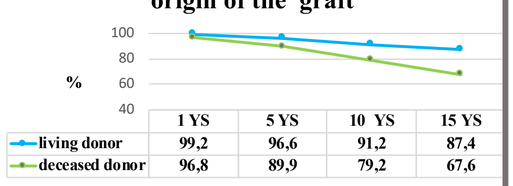
Decrease in waiting time to access transplantation: about 6 months versus 20 months in deceased donor transplant

Benefit of a **pre-emptive transplant**: better survival of the recIpient and the graft because no passage in dialysis. In 2016, 33% of live donor transplants were pre-emptive.

LIFE EXPECTANCY

the programmed nature of the transplant: optimal conditions for the preparation of the recipient and the donor

Survival of the recipient after kidney transplant according to the origin of the graft



	1 YS	5 YS	10 YS	15 YS
living donor	99,2	96,6	91,2	87,4
deceased donor	96,8	89,9	79,2	67,6

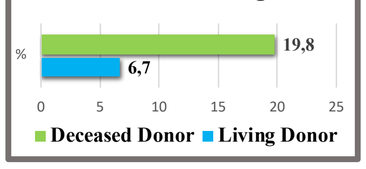
YS= Year survival

Patient survival was considered as the time elapsed between transplant and death. (1996-2016)
(Source: bio medicine agency)

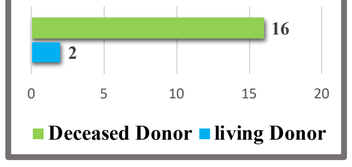
A healthy person with **normal renal function**.
They are not exposed to cardiovascular instability, to the effects of cerebral death.

BETTER QUALITY OF RENAL GRAFT

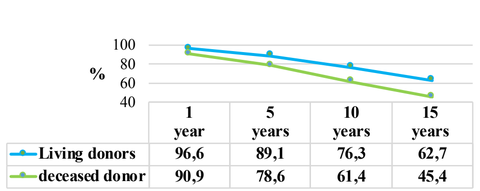
Percentage of delay of renal function of graft



Number of hours of cold ischemia



Graft survival according to the origin of the graft



	1 year	5 years	10 years	15 years
Living donors	96,6	89,1	76,3	62,7
deceased donor	90,9	78,6	61,4	45,4

Transplant survival was defined as the time elapsed between graft and graft nephrectomy or return to dialysis.
(1996-2015)
(Source: bio medicine agency)

CONCLUSION

Living donor transplantation is the treatment of choice. Because of the the increasing age of donors and the shortage of organs, living donor transplantation remains one of the preferred options. Especially since it does not show any vital problems for the long term donor. However, live donor transplanting is not the only answer to graft scarcity. The authorization of the transplant with deceased donor at heart stopped in 2014 also allows to benefit from more graft.

Medical cannabis against cancer pain : is there evidence of an efficient use ?

Marie-Caroline MAYEUX, Nurse
2nd year of "Diplôme d'État" of advanced practice nurse in oncology

Introduction

Complementary alternative therapies are in full swing to address the side effects of cancer and its treatments. The use of therapeutic cannabis, in various forms, is allowed in some 30 countries to avoid some of these side effects. A Marketing Authorization (AMM) exist in France since 2014 for spasticity in multiple sclerosis and Temporary Use Authorizations (ATU) are possible, particularly for epilepsy. However, the first is not marketed because the National Agency for Safety of Medicines and Health Products (ANSM) has judged the medical service rendered insignificant. Thus, this product is not commercialized, lack of agreement on the price.

Currently, there is no legislation for use in the context of cancer pain. This pain is part of the adverse events that can affect the quality of life of the patient and it is often difficult to regulate.

Which leads to the research question : Is there any evidence on the use of therapeutic cannabis in the treatment of cancer pain? To go further, other questions may be raised : What are the possible ways of administration? What can be the undesirable effects of its use?

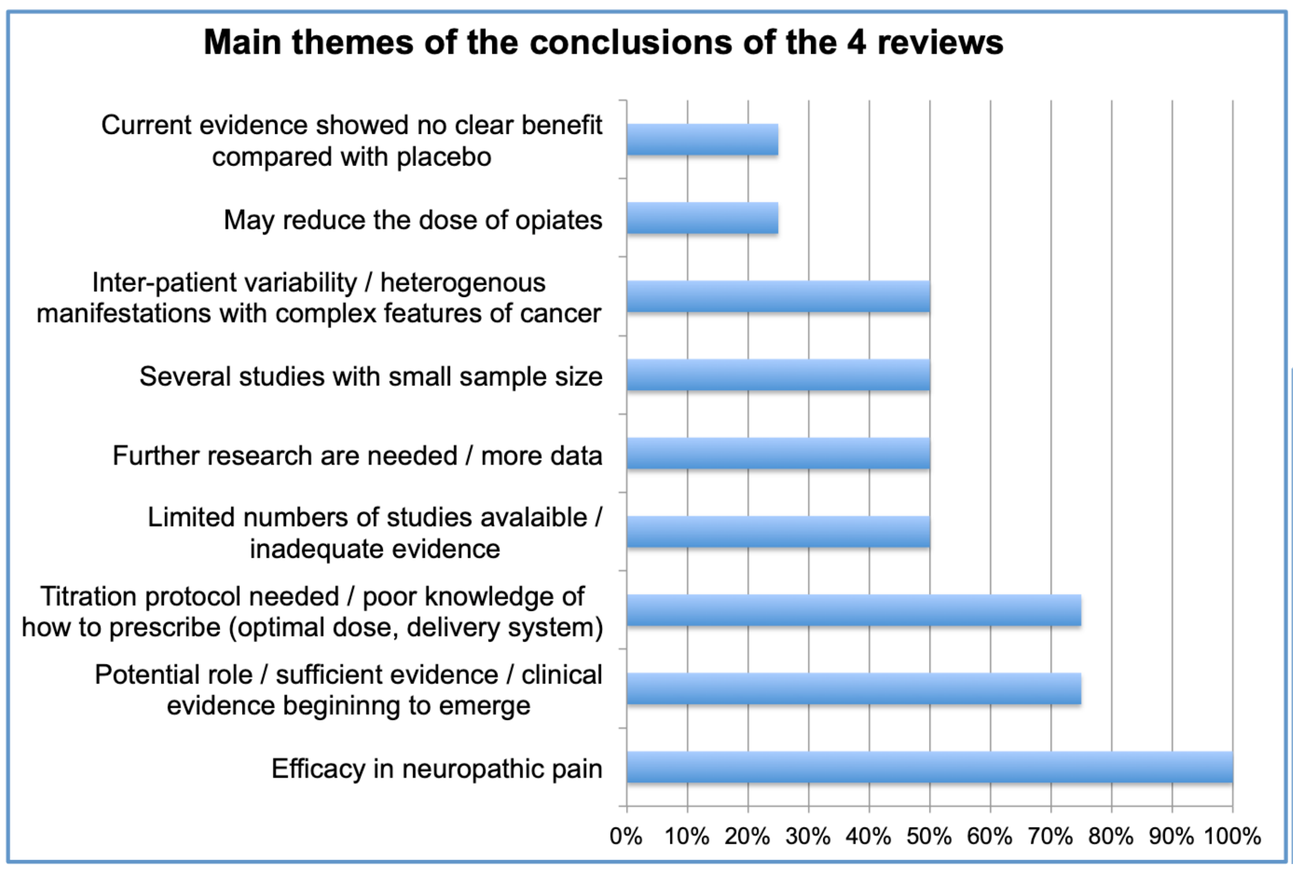
Method

A search was conducted in PubMed on this subject with the following criteria :

- Keywords used / Boolean operator : "Cannabis" AND "cancer pain"
- Criteria for inclusion : Review, under 5 years

In total, out of 276 articles, 4 were selected. After reading titles or abstracts, some articles were excluded because they were mostly away from the subject (chronic, non-cancer pain, pharmacodynamic or pharmacokinetic studies). Articles of studies that were cited or used in reviews have been excluded.

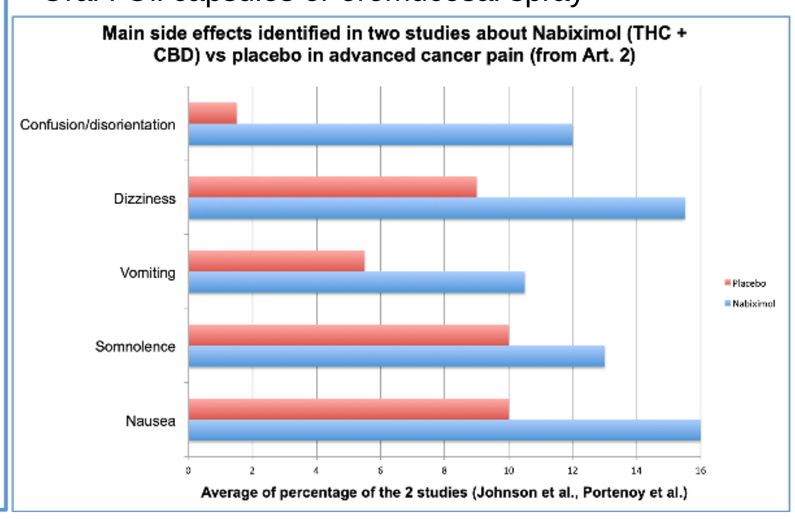
Results



Finally, 16 studies are cited in the 4 articles selected. Five of these studies are cited twice.

Two active ingredients can be used : THC or CBD, alone or associated.

Two main types of administration exist :
- Inhalation : Smoked or vaporized
- Oral : Oil capsules or oromucosal spray



Conclusion

Despite some evidence of effectiveness of therapeutic cannabis in the management of cancer pain, the results remain heterogeneous, particularly in terms of cancer type, administration modalities and management of side effects. No large-scale, high-quality studies have determined the therapeutic potential of cannabis for cancer pain. Only the use in neuropathic pain seems to be convincing. This probably explains why the ANSM decided to launch a call for projects in 2020, targeting the use of cannabis for therapeutic purposes in certain situations. Pain that is refractory to accessible therapies (medication or not), supportive care in oncology and palliative situations are some of these situations. One of the aims will be to evaluate prescribing and dispensing conditions and to collect efficacy and safety data.

Bibliography :
Art 1. Shin et al., « An Integrated Review of Cannabis and Cannabinoids in Adult Oncologic Pain Management», Pain Management Nursing 20, 2019, 185-191
Art 2. Blake et al., « A selective review of medical cannabis in cancer pain management », Annals of Palliative Medicine, 2017 ; 6 (Suppl 2) : S215-S222
Art 3. Häuser et al., « Cannabinoids in Pain Management and Palliative Medicine – an overview of systematic reviews and prospective observational studies », Dtsch Arztebl Int 2017 ; 114 : 627-34
Art 4. Kleckner et al., « Opportunities for cannabis in supportive care in cancer », Ther Adv Med Oncol 2019, Vol. 11 : 1-29

To go further

Relation between type 1 diabetes discovery and psychological stress

DORE Mélanie Advanced Practice Nurse student, Faculty of Medicine, University of Lorrain.

INTRODUCTION

When patients explain their lifestyle during the history of their hospitalization for the discovery of type 1 diabetes, patients may report a stressful event that occurred before the onset of symptoms of the disease. In the literature, a hypothesis emerges that exposure to certain environmental factors such as viral infections, toxic agents, eating habits and **stress (emotional, psychological or traumatic)** could precipitate the onset of type 1 diabetes.
Our goal is to determine whether intense psychological or physical stress can precipitate the onset of type 1 diabetes, based on the following problematic :
“ Is there a link between the discovery of diabetes type 1 and psychological stress ? “.

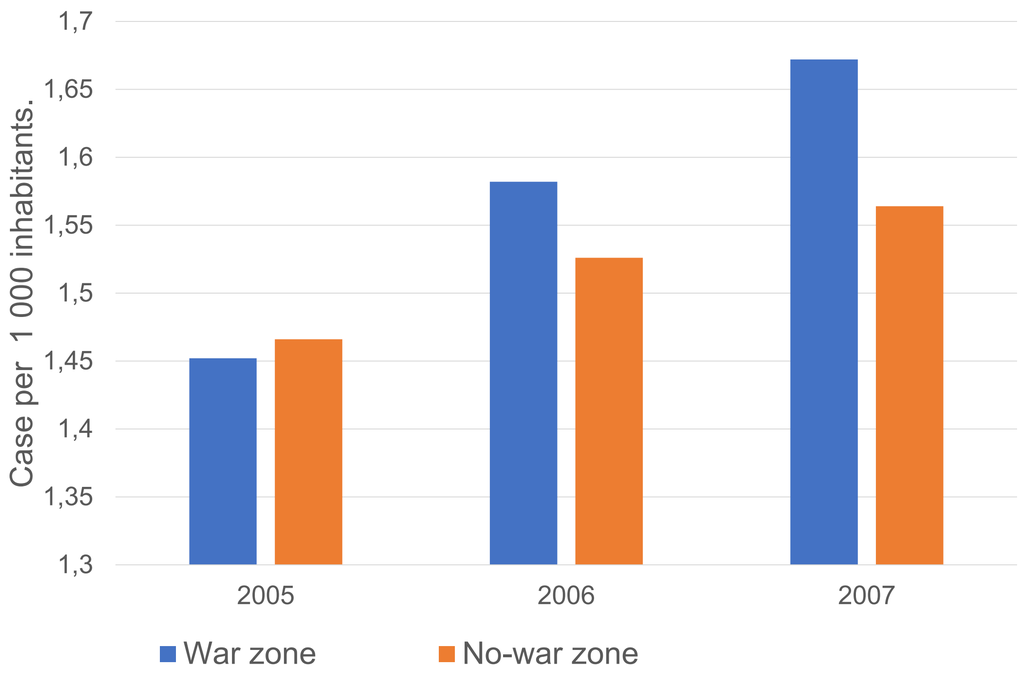
“ *In Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, trauma is described as the experience of intense fear, helplessness, horror, or disorganized and agitated behavior in response to exposure to an event -directly or as a witness- that caused or threatened serious injury or violation of body integrity. ”*

METHOD

The research was done on PUBMED. However, I chose to restrict myself neither to the original language of the article nor to the years of publication, in order to find articles whose study concerns a large number of people, in order to obtain significant and more reliable results. Contrariwise, concerning the case studies, I have restricted myself to the last five years.
No significant bias was found in both studies and the quality analysis seems reliable because the cohorts are derived from official Nationals registers and censuses made by pediatricians.
Key words : **"psychological stress”**, **“type 1 diabe*”** were used in the search equations. The inclusion criteria were studies of diabetes findings in type 1 diabetic patients. This equation yielded a result of 339 articles.
4 relevant articles were kept, exclusion criteria were type 2 diabetes studies or patients who have suffered psychological stress after the discovery of diabetes.

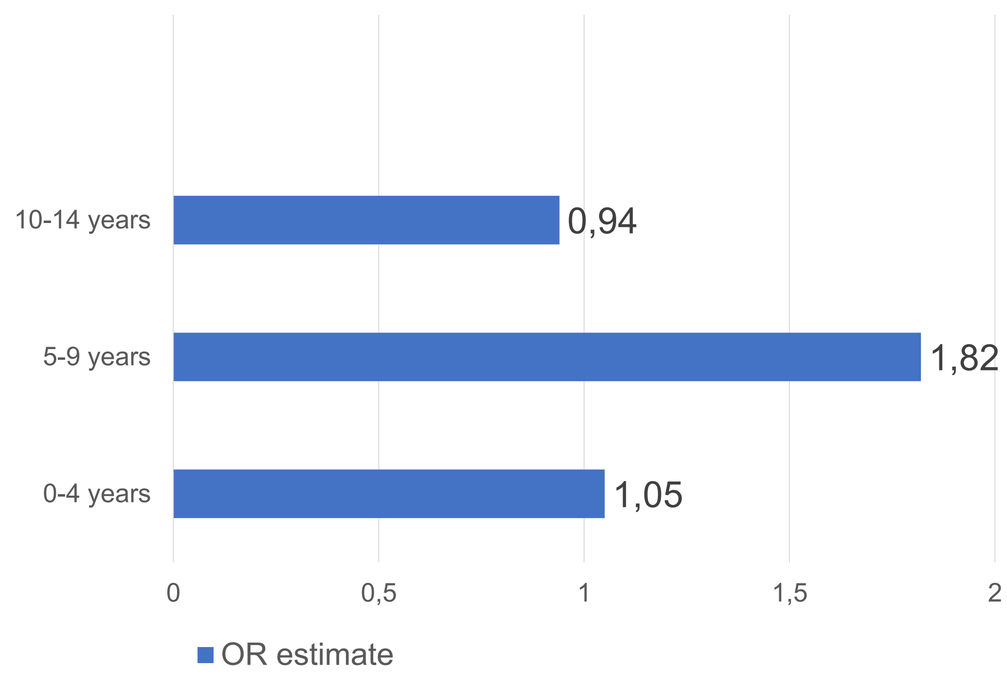
RESULTS

Comparison of the number of type 1 diabetes' finding among 0-17 years old in Libya, between war and no-war zone before and after the war.



War from July 12 to August 14, 2006.

Relative risk estimated as odds ratio of developing Type 1 diabetes when exposed to life events including losses within the family.



95% confidence limits.

Retrospective study, showing a higher increase in the incidence of type 1 diabetes post-war (2006-2007) among 0-17 years old living in the war zone compared to the no-war zone. The incidence persists and continue to increase more than 2 years after the psychological trauma.

Swedish national reference study indicates that severe emotional stress multiplies by 1.82 the risk of developing type 1 diabetes among 5-9 years old, but seems to be not impacting for the other ages (0-4 years and 10-14 years).

<u>Case studies</u> :

- French case : soldier diagnosed with type 1 diabetes following a physical trauma, reports a state of post-traumatic stress plays a role in the pathogenesis of type 1 diabetes.
- Case of a 10 years old Libyan boy, which concludes severe psychological trauma can play an etiological role in type 1 diabetes pathogenesis in a non predisposed child.

CONCLUSION

During last decades, we observe type 1 diabetes incidence increasing. Different environmental factors are suspected.
It appears for these research articles that psychological stress or severe trauma is part of it and may precipitate the onset of type 1 diabetes. By continuing research on the subject, it may happened in the following years that stress will be recognized as deceased accelerating factor and the term **“post-traumatic diabetes”** will become a new diagnosis of autoimmune diabetes that doctors will be able to ask.

INTEREST OF SMS IN THE FOLLOW-UP OF DIABETIC PATIENTS.

K.GALOIS University of Lorraine, Nancy, France.

INTRODUCTION

Type 1 and 2 diabetes is one of the most common chronic diseases in the world. This pathology is constantly increasing.

In 2015, the International Diabetes Federation considered that there were 415 millions people diagnosed with diabetes and 642 millions projected in 2040.

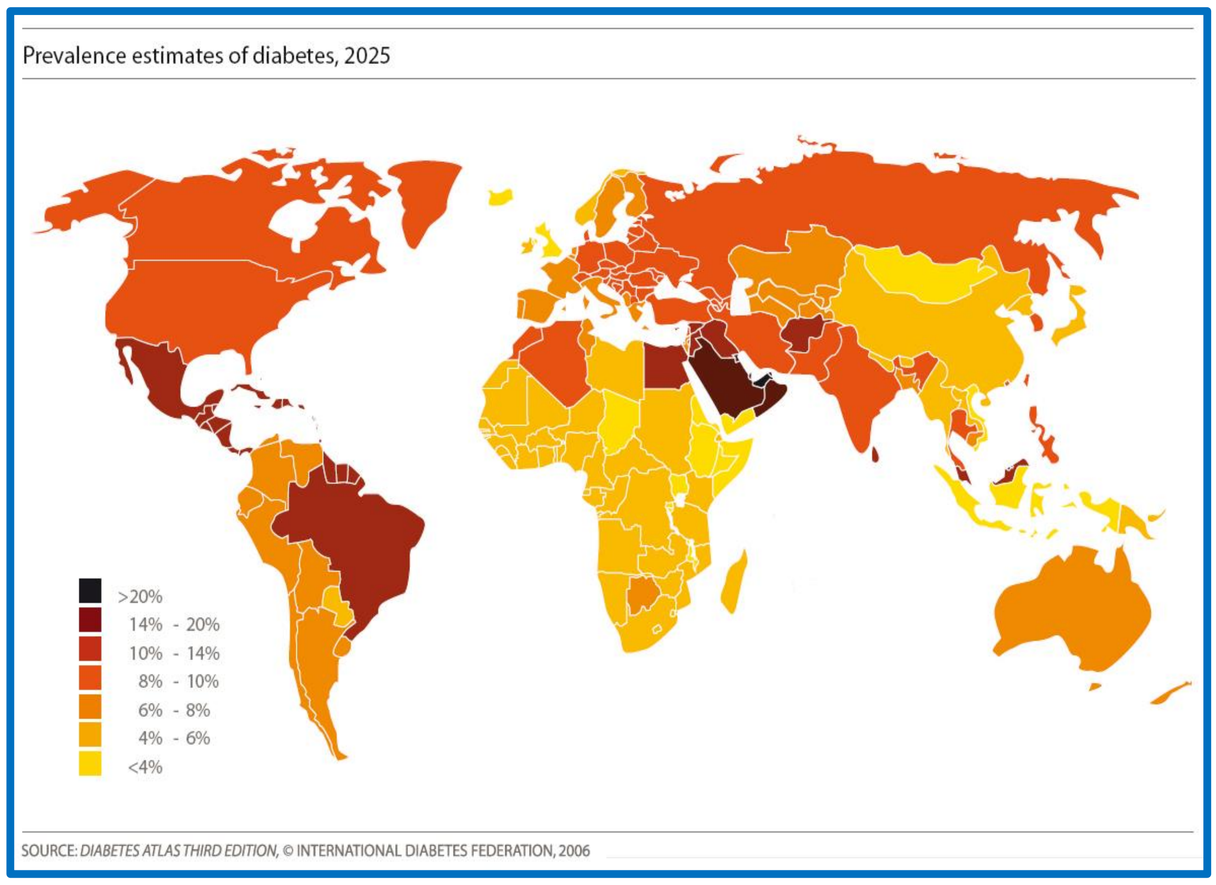
It leads to associated complications representing a significant cost in countries health expenditures.

Diabetes requires ongoing care and patient education in patient self-management to manage and prevent complications.

In an era of new technologies and the use of SMS, could we facilitate the education of diabetics, to improve their knowledge of prevention and control of their treatment?

OBJECTIVES

To demonstrate, based on 4 studies from developing countries, the value and benefit of sending SMS messages to improve knowledge and compliance in the prevention and treatment of diabetic patients.

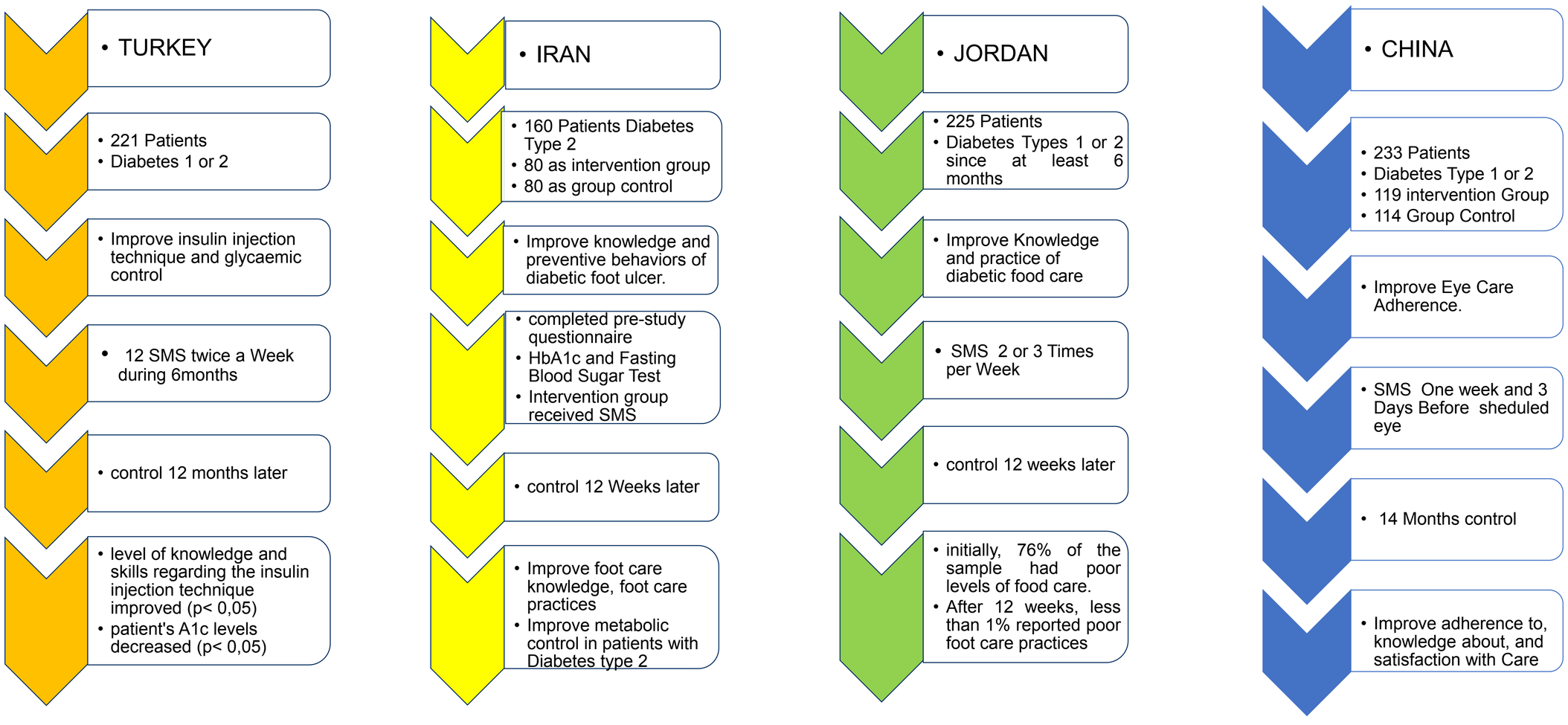


METHODS

A literature search was conducted. The keywords used for the research were "improvement" AND "knowledge" AND "diabetes" AND "SMS" in the ULYSSE database of the University of Lorraine, keeping only publications published since 2010. Publications that concerned the elderly, or children and those that did not use the SMS tool were excluded. In addition, publications from developing countries were preferred. Four publications were selected, appropriately framing my research question.

RESULTS

These four studies carried out in 4 developing countries on a panel of adults aged 18 to 75 with type 1 or 2 diabetes who had a mobile phone capable of reading and understanding the information sent.
These studies carried out over a period ranging from 3 to 12 Months.



CONCLUSION

Text messaging by telephone highlighted the positive value of this method. It's an easily achievable and effective cost-effective way to improve knowledge, adherence to treatment and prevention of complications in diabetic patients.
However, it would seem desirable to consider a longer-term study to confirm the beneficial results on HbA1c and on the prevention of diabetes complications.
In 2014, a literature review demonstrated the value of SMS use in care services and treatment compliance. However, more in-depth and longer-term studies on SMS are still needed.

REFERENCES: