



#### Libyan International Medical University

#### **Faculty of Pharmacy**

Exploring an herbal "wonder cure" for cancer: A multidisciplinary approach



Qusai Al-Barasy Mohammed Al-Worfalli Roaa elhoudiry Safa al naas

## Method

With qusai and mohamed



### Searching

We conducted an extensive search of the conventional medical literature using a number of online search engines such (PubMed, as well as textbooks such (i.e., medical toxicology, Our search found no clinically relevant evidence that Ephedra foeminea (or Alanda) was ever examined for its effect in the treatment of cancer

We then turned to traditional sources, including the Medieval Arabic and Hebrew medical and pharmacological literature mention was found in the literature on the use of this herbal remedy for the treatment of cancer.



### O Testing

Our next step was to examine the effect of Alanda in the form being used by patients with cancer. For this purpose, we used an extract which had been prepared by the father patient with testicular cancer, who was undergoing treatment with bleomycin, etoposide, and cisplatin (BEP protocol). The sample Analysis Laboratory in the Division of Identification & Forensic Sciences, in Jerusalem. There, it was examined gas chromatography-mass spectrometry (GCMS) assay...



### O Initial assessment and consultation process

Clinical interactions at the IOP are documented in a research-based registry protocol. The protocol was approved by the Ethics (Helsinki) Committee of the Carmel Medical Center, Haifa, Israel, and registered at ClinicalTrials.gov (NCT01860365). Procedure at the IOP requires that patients arrive at the initial integrative physician (IP) consultation with a Ben-Arye et al. Page 3 J Cancer Res Clin Oncol. Author manuscript; available in PMC 2017 July 17. Patients are seen by one of the programs IPs who are conventional physicians with extensive training both



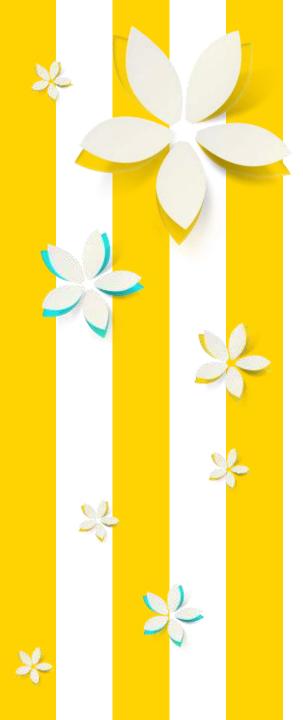
### O Examining the prevalence of Alanda use

In order to understand the prevalence of Alanda use among Palestinian and Israeli patients with cancer we first examined the Arab population in the north of the country, where this phenomenon had apparently begun. For this purpose, we initiated a parallel study which took place at the Wattani Hospital in Nablus, Palestine. The study was conducted by researchers from the Biodiversity and Environmental Research Center between August and October 2014. Patients with cancer of any stage aged 18 years and older were eligible for participation in the study, and a research assistant gave them the guestionnaires during the consultation with the patient's oncologist or during treatment.

## Result

Wiht roaa





### which includes

O1 Prevalence of Alanda use

O2 Safety concerns

O3 Anti-cancer effects





- ✓ Alanda's first use was documented in IOP records in October 2013, before that time it was not in circulation
- ✓ use of alanda moving from Arab and Muslim Druze societies in northern Israel to Jewish and Baha'i societies
- ✓ Initially 18 patients used this herb and 17 of them were also associated with chemotherapy that includes factors including cytoxan and xyloda and their average age was 52
- ✓ The use of the herb has spread through friends and relatives, all of whom believe that herbal treatment either reduces the size of the tumor or at least delay the progression of the disease, and they can harvest the herb by themselves, and without its cost and then prepare





- √ 350 500 grams of herb and put them in 2 7 liters of water, boiled for an hour then the patient takes two to three times between 100 ml and 500 ml per day
- ✓ Between December 2010 and June 2012, the National Hospital in Nablus performed herbal remedies. This herb was not mentioned and it began to be used in 2014-2015 and its usage has spread
- ✓ The extent of this phenomenon became more apparent when we received an email from an IP address working at the Memorial Sloan Kettering Cancer Center in New York, which was about an old woman with glandular tumor in a woman and taking Alanda with her treatment.



### O Safety concerns



- ✓ analysis the drug by GC-MS assay did not identify any ephedrine or amphetamine-related compounds in either of the samples, but they found nicotine perhaps because the one who made the herb was a smoker
  - O Anti-cancer effects
- ✓ XTT and IC50 test did not reveal cytotoxic activity in Alanda on breast cancer cell lines on any anticancer activity in the herbal preparation but when added with treatment it was found to have anticancer activity

### Discussion

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The sicencst found increase the uses for "wonder cure" for cancer, Alanda (ephedra foemina Forssk.) varied by population in phalastine and other areas in the world, So they are tried hard to understand this new plant.

The story of Alanda began with "patient zero", who believed that the herbal remedy had "cured" him of his cancer, and spread rapidly to other patients with cancer who were looking for a "natural" remedy to treat their disease.

In the fact the Alanda not have any benefit as an anti-cancer agent also does not contain any potentially toxic ephedra alkaloids, but it s has a potential to interfere, in a dose — dependent with the cytotoxic effects of conventional chemotherapy agents.

Herbal medicine one of the CTM modalities that have appositive effect in some cases but also have potential risks include adverse herb interaction.

Traditional herbal medicine is often perceived by patients, especially in communities with a high affinity for these practices, as a "natural" and therefore safe treatment option. In a study by Metz et al. among patients presenting to a number of radiation oncology centers, 12% reported purchasing unconventional medical therapies through cancerrelated internet sites

Nowadays major research is being done in the field of health to determine non-proven treatments for cancer.



Examples of the importance of online research include the popular use of the Possible harmful Amygdalin (Laetrile, containing cyanide) by patients in such countries as Germany, where it is purported as a "cancer cure" or other unproven remedies such as ESSIAC in the US and Canada.

In Germany, Koehl et al surveyed non-medical practitioners of complementary and alternative medicine who were treating oncology patients. They found that none of the treatments prescribed were being discussed with the patient's physician on a regular basis.



Because research in the field of informatics is not confident of alternative medicine, it is not based on tests medical and analysis, but despite all this the use of alanda spread through YouTube and of course the standards differ between societies, there are those who value the patient's privacy and use of herbs as a treatment and there are those who do not respect them and here comes the role of addresses The IP is to respect the privacy of patients in terms of their use of herbs, but also the confirmation of the safety and effectiveness of the herb. position has risen with curious herbs during its use in chemotherapy by several specialists and several medical centers and confirmation of its

There are five steps to use an affective and safe complementary medicine therapies including herbal medicine:

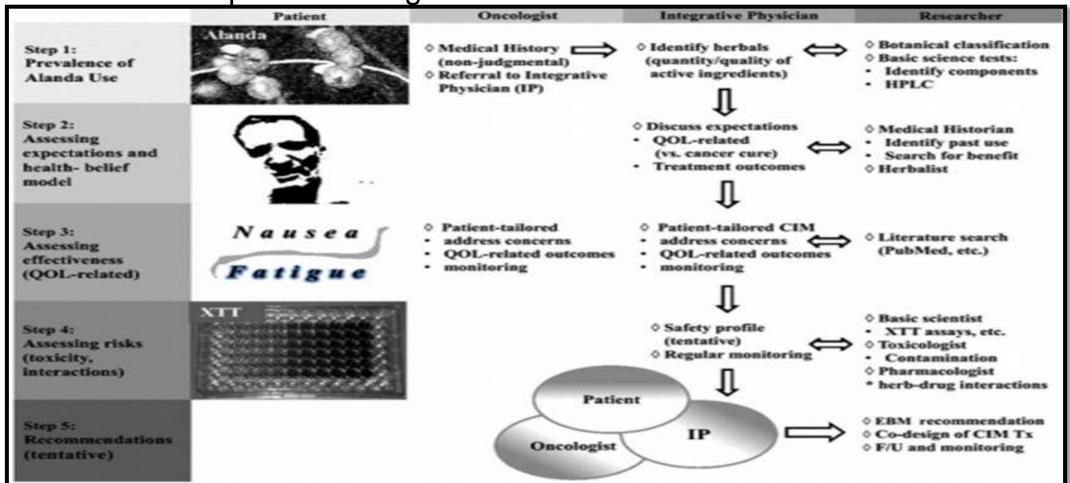


Figure 1; Approach to establishing evidence-based guidance for the use of Alanda\* during chemotherapy

- Use a scientific methods for e.g (HPLC) and assurance quality e.g., good GMP) to in order to rule out any contamination by toxic substances or conventional medications in the product.
- The steps are used to understand the implications of herbal medicine:
- 1. Patients need to take place with the IP to .
- 2. the effectiveness and safety of the relevant herbal remedy examined for this IP need atem composed of:
- a medical historian
- a licensed clinical herbalist
- research assistant
- a basic-science researcher
- 3. setting, following the IP consultation; and others from fields such as toxicology

- During the consultation, the IP can also explore patient-centered aspects of herbal medicine use e.g. what they hope to achieve from the use of the herbs how this practice connects with their health belief; what are the most significant QOL-related concerns)
- The final stages of the process againe involve:
- 1. The IP
- 2. The patient care
- 3. The potential risks of herbal medicine use should be addressed.
- 4. findings of an in-depth examination of all relevant information by medical literature
- 5. The impact of the herbal product on the anti-cancer activity of anti-

- If possipole can be used the vitro testing of cytotoxic effects of treatment, using accepted scientific methods (e.g., XXT assays) to provide the IP with a point-of-reference for future research.
- the end of these processes, an open and non-judgmental discussion needs to take between the IP, the patient and the oncology health care professional.

#### Conclusion

- There are many plants that are used in the treatment of cancer and have many side and toxic effects that used by patient with cancer
- Products whose goal is to improve quality of life and well-being need to be tested as well, integrating the "bedside" with the "bench" in a bi-directional ethnopharmacological effort.
- The integration of CTM within the conventional oncology setting, in which IPs provide guidance on this subject, may serve as a key to such an approach.



# Refrence:

Ben-Arye, E., Mahajna, J., Aly, R., Ali-Shtayeh, M., Bentur, Y., Lev, E., Deng, G. and Samuels, N., 2020. Exploring An Herbal "Wonder Cure" For Cancer: A Multidisciplinary Approach

