

TOKTAM KIANIFARD

Curriculum Vitae

Contact Information:

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Professional/Educational Qualifications and Training:

Bachelor in Food Science , BSc, Azad University, Sabzevar, Iran (2004)

Master in Health Sciences (Dietetics),MSc Dietetics, Savitri Bai Phule University of Pune ,India (2007-9)

PhD , Health Sciences (Dietetics), Savitri Bai Phule University of Pune ,India (2016)

Cambridge ESOL (English for Speakers of Other Languages) Certificate, Pune, India (2009.)

ELTIS(English language Teaching Institute of Symbiosis), Pune, India (2006-2007)

Introduction of pharmacology and toxicology 2013-short course training, Pune University

Growth and Nutrition 2013-short course training, Pune University

Work experience:

Period	Post	Site	Remark
June 2002-July 2005	Quality control manager	Novbar Dairy Product (Food Industry), Neyshabour. Iran	Also worked as (i) Milk laboratory expert (ii) Member, Research and Development unit.
July-Nov 2008	Nutritionist	Ghamar Bani Hashem Hospital, Neyshabour, Iran	Post MSc Hospital Internship period under Supervisor:, Senior Consultant
Jan 2011-Dec 2012	Research Fellow (paramedic)	Center for Rheumatic Diseases, Pune, India	Worked in rheumatology outpatient to complete patient centric measures-pain, global and functional assess, quality of life; enter and extract/mine and analyze data-central referral patient data base
Jun 2012-Dec 2014	PhD research fellow	Center for Rheumatic Diseases, Pune, India	Developed protocol and carried out controlled blind interventional diet study in

			RA (PhD thesis)
Jan 2015-till date	Dietitian & Post-Doctorate Fellow	Center for Rheumatic Diseases, Pune, India	In-charge diet clinic (arthritis and obesity); sub-investigator research projects

Research Projects:

1) Community based comprehensive (macro and micronutrient) diet survey of 139 Rheumatoid arthritis (RA) patients and 165 unrelated healthy subjects using standard national (NIH, Hyderabad) guidelines.

This was a non-commercial academic in-house project of ARCF-CRD Pune. A low diet potassium intake was demonstrated in patients which is not reported in the World literature.

2) Development and validation of an Indian translated version of RA pain scale (RAPS)

It is difficult to measure pain. The popular method of using visual analogue scale is too simplistic. Pain is a complex phenomenon. RAPS was developed in the Caucasian patients suffering from RA in 2000 and validated and published. This comprehensive 24 multiple choice questions addresses multiple facets of pain- physiological, affective, sensory discriminative and cognitive. However, the scale has found little if any acceptance for clinical use. The questionnaire was translated into the local language (Marathi) of the Pune region as per validation requirements and after several preliminary rounds of pilot study. It was further validated through a cross sectional study using volunteer consenting patients suffering from RA. Validation included face and content, internal and external consistency, construct, test retest, concurrent criterion, regression (predictors) and factor analysis and sensitivity to change. The Indian version was found to be valid and suitable for use in routine rheumatology clinic and drug trials in RA. I then used the Indian RAPS as a core measure in my interventional study of RA (see below)

2) Effect of potassium supplement on pain in rheumatoid arthritis (RA). This was a thesis submitted for the degree of Doctor of philosophy in Health Sciences (Diet) to the Savitri Bhai Phule Pune University in 2015. 179 patients of active painful RA on supervised standard rheumatology care in CRD Pune were randomized into a 3 arm parallel efficacy diet based study of 16 week duration. While potassium (K⁺) enriched diet with or without additional food based K⁺ supplement was advised to be consumed in two arms, routine diet was continued in the third arm (active control). The sample size was statistically designed with 80% power to detect significance at p<0.05. On completion and analysis, pain was significantly reduced in the K intervention arm with additional supplement. Several other

clinically important benefits including reduced blood pressure were shown. An excellent tolerability and safety profile of diet based K⁺ interventions were demonstrated even with high daily diet K⁺ intake (up to 9 gm). The withdrawal rate was about 10% in each arm and never due to an adverse event. The study included comprehensive diet analysis and also explored relationships between certain food items and pain-inflammation related variables. Advanced laboratory assay included serum cortisol and urinary electrolytes.

3) Long term efficacy and safety profile of Artrex™, a standard Ayurveda plant derived medicine used to treat RA and OA knees. The initial randomized control drug trial studies were carried out in 1996-2000 and published in peer rheumatology literature by Dr Arvind Chopra and team in CRD Pune under sponsorship from US based company Bioved/Ayurcore. The patients were followed up in regular rheumatology clinic for prolonged periods and over 10 years in some cases using standard case record forms. Detail immunogenetics assays were also carried out.

Under a new USA based research assignment (paid post doctorate), I am appointed to extract/mine the long term data of these patients and carry out a comprehensive analysis. CRD Pune has a comprehensive data base of all patients evaluated and followed up since 1996 (www.rheumatologyindia.org). Several surviving patients are ongoing in CRD Pune and will be recalled. This project will be completed from Mar-Aug 2016.

4) Comparing efficacy and safety profile of Artrex™ (a standard Ayurveda plant derived anti-arthritis medicine) and oral Glucosamine (proprietary) to treat painful osteoarthritis (OA) knees in a randomized single blind parallel efficacy controlled study of 16 weeks duration. This non-commercial investigator initiated study was carried out by Dr Arvind Chopra and his team in CRD Pune during the period 2005-2010 in CRD Pune in a multiple exploratory drug trial studies to drive a drug development program (New Millennium Indian Technology Leadership Initiative) sponsored by Government of India. This particular OA study, albeit completed, could not be evaluated and analyzed so far because of shortage of funds and changed research priority. Several other related NMITLI driven anti-arthritis drug studies were published by Dr Chopra.

Under a new USA based research assignment (paid post doctorate), I am appointed to enter relevant drug trial data of patients and carry out a comprehensive analysis. Several patients continue to be followed in CRD Pune and will be recalled. This project will be completed from Mar-Aug 2016.

5) A comparative study to assess the efficacy, safety and immunogenicity of YLB113 and Embrel for the treatment of rheumatoid arthritis.

This study sponsored by YLB (Yoshinda-Lupin Biologic, an Indo-Japanese pharmaceutical company based in Pune) is an international study with 120 sites in Europe, Japan and Asia. YLB113 is a biosimilar product to innovator etanercept (Embrel™). Etanercept is a standard biologic anti RA drug approved by US FDA and several countries. CRD Pune is selected as one of the study site. I will be a sub-investigator for evaluation of physician and patient centric measures as per protocol.

This is a randomized double blind active control study with 2 arms of 56 weeks duration. Either of the interventional drugs will be injected subcutaneously every week and patients monitored for efficacy and safety as per protocol. Volunteer consenting patients with active RA despite supervised standard treatment with methotrexate and fulfilling other eligibility criteria as per protocol will be enrolled.

Publications/Conferences Attended

1. Is dietary potassium important in Rheumatoid Arthritis? Preliminary Observations. *Annals of the Rheumatic Disease* 2014;73:1169-1170
2. Validation and clinical usefulness of rheumatoid arthritis pain scale (RAPS), *Indian Journal of Rheumatology* 2014;9: Supp1, S21-22
3. An Indian (Asian) version of Rheumatoid Arthritis Pain Scale (RAPS)- Validation and Clinical Relevance, *Annals of the Rheumatic Disease* 2015;74(suppl2),1356
4. Oral potassium(K+) reduce pain in RA, A randomized active control study of diet based on K+ intervention, *Arthritis Rheumatol.*2015; 67(suppl10)
5. Rheumatoid Arthritis Pain Scale (RAPS) in Indian (Asian) patients suffering From RA- Clinometric and Clinical Usefulness, *International Journal of Rheumatic Diseases* 2015 (abstract)
6. Validation and Relevance of Rheumatoid Arthritis Pain Scale (RAPS) in Indian (Asian) patients suffering from rheumatoid arthritis. *Clinical Rheumatol.* 2016;35(1):63-71
7. Evaluation of Diet in Patients suffering from Rheumatoid Arthritis (RA) with focus on Potassium (K+). (submitted to *Clinical Nutrition* 2016)
8. Putative Role of Potassium (K), including K ion channels, in Pain and Rheumatoid Arthritis (RA). (submitted to *Indian J Medical Research* 2016)

Patents & Innovations:

I have participated in two drug development projects in Iran as follows and my name was included in the patent :

1. High purity Metronidazole Compound Synthesis Innovation.PCT/IB2014/064597 (Iran)

I was a participant in the team that developed a novel Metronidazole formulation with better efficacy and safety profile. This is likely to cost less. The procedure was tested using NMR .

2. DiphenHydramine Compound Synthesis for reduction of sensitivity and sleepiness
Innovation registration no: 84530 (Iran)

I was participant in the team which improved the Diphenhydramine hydrochloride formulation with increased purity, better efficacy and safety profile (lesser drowsiness). The innovated drug was tested using NMR and in animal model.

References

1. Dr. Arvind Chopra, MD,DNB ,Director and Chief Rheumatologist, Center for Rheumatic Diseases, Pune, India. Tele: 91-20-2633297/26344099/26345624; Email: arvindchopra60@hotmail.com
2. Dr. Bhushan Patwardhan, PhD. Director and Professor, School of Health Sciences, Savitri Bai Phule University of Pune, Pune India. Tele:+919689766399/912025692031; Email: bpatwardhan@gmail.com
3. Dr Suresh Moroli, MD, Professor HOD Pharmacology, LTM Medical College & General Hospital/Nair Hospital, Mumbai, India. Tele:9004094132, Email: Suresh.Maroli@relibo.com
4. Prof George Nuki, FRCP. Emeritus Professor of Rheumatology University of Edinburgh Institute for Genetics and Molecular Medicine Western General Hospital Scotland, UK. Email: G.Nuki@ed.ac.uk
5. Prof Gopal G Rao, FRCP. Consultant Microbiologist, Head of Department of Microbiology, North west London Hospital, UK.Tele: +442088692972/2977. Email: ggopalrao@nhs.net