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A New Natural Anti-Malaria Source in India: A Brief Communication

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Introduction

The Nobel Prize to Artimisinin isolator [1] has caused focus onto herbalims as source in drug discovery [2]. One such is OMARIA - Orissa Malaria Research Indigenous Attempt (1997-98). It has been in use in India to "Fight Malaria at Home - Koraput" (1998-2014). In *c.*2000 BBC [1] and The Economic Times [2] reported such initiative. Its composition composition and broad attainments were reported as Abstracts [3-6]. OMARIA relates to an on foot anti-malaria effort in Koraput (18°49N/82°43E) which is India's core-endemic-year round manifesting malaria hub. It may be fruitful to compare OMARIA with artimisinin combined therapies (ACTs).

Source: small, harsh Ayurvedic dalimba\dadima (pomegranate); a native member of the Indian sub-continent (Figures 1 and 2). Has no food\juice value. The juicy-fruit type is known as Bedana. OMARIA does not use Bedana. Anti-malarial effect of the Ayurvedic Dalimba is not indicated in the classical [7,8] and or in the Govt. of India official Medicinal Herbs Compendium [9] and or in the Sino-Nipponese texts [10,11].

Composition: Post pluck the fruit is cut; its aril is discarded; the rind (only) is bone dried to stone hardness in shade or in Sun; Hand pounded and filled @500mg., into gelatin capsules of size No.'00'. This is OMARIA the anti-malaria capsule.

Dose: 1 capsule thrice daily, for 3-4 days as per clinical indications. Paracetamol 500mg 1 tab twice daily during the 1st & 2nd day. Kill & clearance.

Drug moiety: The rind contains Ellagic acid ($C_{14}H_6O_8$; mw-305) & Ellagitanins viz. Punicalgin, Punicalin and Punicafolin, along with K^+ [own data]. They have a chemical formula of $C_{48}H_{28}O_{30}$ and $C_{34}H_{22}O_{22}$) and a mw range of 1100~1125 and 780~785 respectively (Figures 3 and 4). Are hydroxyls - process scavengers (anti-oxidative). The potassium ion is attached as an anomer-enviable natural & strong bond. K^+ has salutary efficacy in neuro muscular morbidity that is associated with brain malaria. The rind has only the above named three moieties. There is no other confounding or confabulating compounds.

Clinical use history: Use of OMARIA started in June 1997 as a mini food based economic natural remedy for rural homes and went on to find large scale frank clinical application from June 1998 (Indian Red Cross Society Herbal Dispensary, Koraput, Odisha, India C/o District Magistrate cum Collector; to "Fight Malaria at Home". Till date > 22,000 cases of therapy; >1000 case of prophylaxis has been under taken. Includes whole time residential schools, full villages in drug resistant, core endemic zone. Free therapeutic operations are current. A licensed commercial product is also available since 2014.

Clinical results: The 15yr long clinical use results of OMARIA-EAK are as follows :- (i) prevents onset of malaria i.e., provide prophylaxis (ii) blocks transmission (iii) is very effective in brain malaria (iv) safe (v) anti-inflammatory (vi) process scavenging (vii) synergic with allopathic anti-malarials & antibiotics (viii) safe in pregnancy (ix) kills & clears gametocytes (x) long term (decadal) mono station continuous use yet no resistance has been reported.

Figure 1: Dry whole Ayurvedic punica, chloroplast stage (juvenile); thick dermis; yields the highest anti-malaria drug moieties. Native product of Indian sub-continent, suited well to indo agro-meteorology.

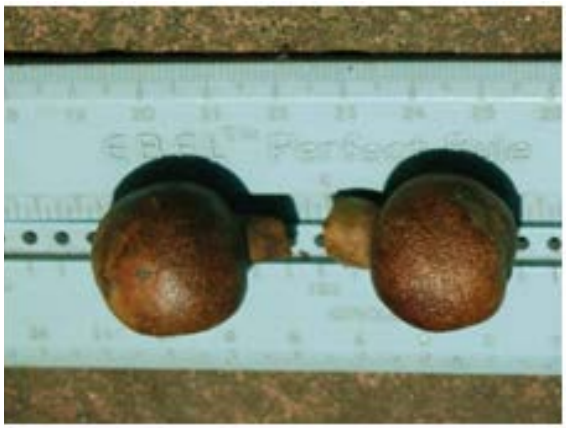

Figure 2: Indian Ayurvedic Punica is a new wonder source to combat drug resistant malaria. Also offers a paradigm shift.

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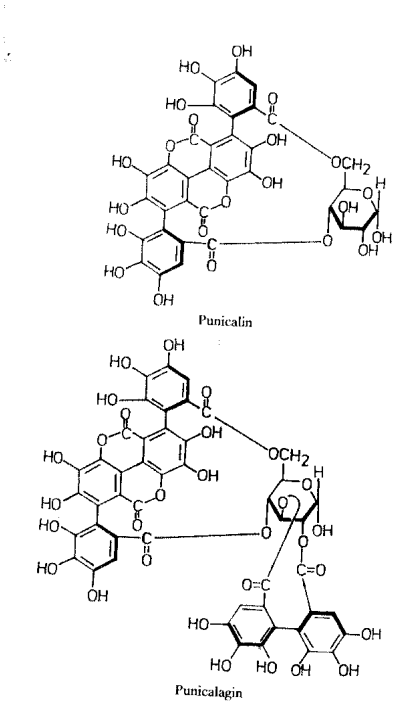

Figure 3: Chemical formula is $C_{48}H_{28}O_{30}$ and Molecular range is 1100~1125.

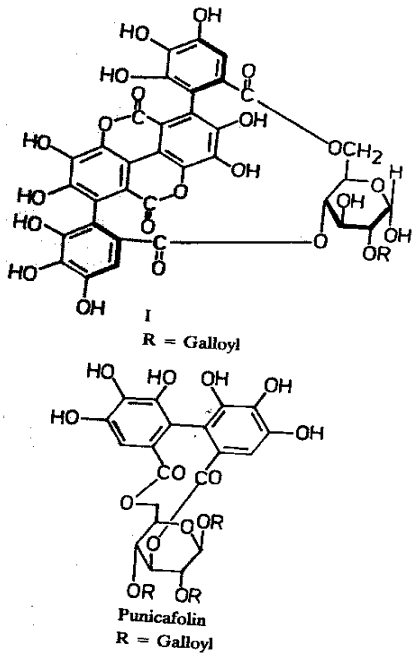

Figure 4: Chemical formula is $C_{34}H_{22}O_{22}$ and Molecular range is 780~785.

Discussion and Conclusion

All currently available anti-malarial drugs are (i) mild-chemotherapy agents (ii) inflict inflammation by self (iii) contra indicated in pregnancy (iv) and do not indicate the above properties. Hence, the natural product called OMARIA-EAK offers a paradigm shift and posits as useful in Afro-Asian-Latin America context. The natural product (i) Artimisinin combined therapies (ACTs) are alkaloid, mild chemo-therapy, toxic and have related disadvantages (ii) OMARIA is not. It offers a paradigm shift. OMARIA needs to be compared and contrasted with ACTs.

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References

1. BBC (2000) Pattanaik, Nageswar. India claims malaria cure. UK.
2. Economic Times (2000) Herbal Anti-Malaria Drug on Anvil, News Report," India's National Circulation-News Paper, Calcutta, India.
3. Bhattacharya D (2003) A Mixed Herbo-Chem - Anti-malarial: indicates cure & prophylaxis against Pf & Pv; > 500 cases in 5 yrs; Empirical basis of Holistic approach. American Journal of Tropical Medicine and Hygiene (AJTMH) 69: 484.
4. Bhattacharya D (2004) Punica granatum's dermis indicates prophylaxis against malaria & wide spectrum anti-viral property in human use 171: 288.
5. Bhattacharya D (2007) Tannins, Ions, Cations & malariasis: observations & theory. American Journal of Tropical Medicine & Hygiene 77: 27.
6. Bhattacharya D (2010) Punicalin and punicalagin fails cerebral malaria? American Journal of Tropical Medicine & Hygiene 709: 72.
7. Samhita C (1973) c. 4th AD, of Agnivesa, Bramhanand Tripathy. Chaukhamba Surabharati Prakashan, Sastri K, Chaturvedi G (edts), Varanasi, India.
8. Manjaree C. Palm Leaf Mss. c. 1800 Ed. of earlier original work dt. c. 8th AD (Iron stylus scripted; Original Mss), No. Ay-136 & 162. In: Das J, Sadhangi G (eds), Orissa State Museum, Bhubaneswar, India.
9. Rastogi RP, Mehrotra BN (1998) Compendium of Indian Medicinal Plants. Central Drug Research Institute, New Delhi.
10. Cidian ZD (2005) Grand dictionary of Chinese traditional medicine (2ndedtn). Shanghai Science & Technology Press, Shanghai.
11. Read BE (1936) Chinese Medical Plants from the Pen Ts' ao Kang Mu.

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