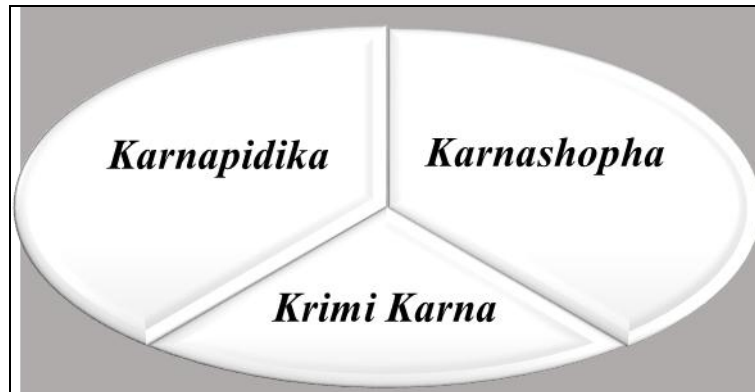




**Karnaroga**

The common ear problems are associated with three major conditions as depicted in **Figure 1**. Pain and inflammation, etc. are main symptoms of ear problems.



**Figure 1: Features of common ear problems.**

*Karnapoorna* involves instillation of the drug in ear, *Karna Dhoopan* means fumigation of the ear with ayurvedic medicines possessing antimicrobial and anti-inflammatory properties. *Lepa* means coating on the affected area, *Pramarjana* means cleaning of ear and *Prakshalana* involves toileting of ear to remove ear wax and debris.

The common signs and symptoms of ear problems includes dull pain in the ear, headache, ear, nausea, muffled hearing, loss of balance and disturbed sleep, etc. These all symptoms mainly associated with various causes such as; presence of foreign object in the ear, water trapped inside the ear, ear wax, ear infection, throat infection, sinus infection and tooth infection, etc.<sup>[7-9]</sup>

According to *Doshic* predominance and specific clinical characteristics, *Acharya Charaka* and *Vagbhata* categorised *Karnasula* as *Vataja*, *Pittaja*, *Kaphaja*, and *Sannipataja*. According to *Acharya Sushruta*, *Vata dosha* vitiation is the cause of *Karnashula*. Regarding *Karnashula*, various medications and regimens are mentioned.<sup>[10-11]</sup>

In accordance with *Bhavaprakasha*, *Paribhadra* (*Irythrina varigata*, *fabaceae* family) is beneficial for *Vata Kaphaja Rogas* as well as efficient in *Karna rogas* and *Karnasula*. It treats conditions such as edoema, obesity, diarrhoea and eye problems.

**Role of Paribhadra**

This plant imparts *Vatakapha Hara* effect, it has an anti-inflammatory effect, reduces edoema, also offers benefits in gingivitis, laryngitis, pharyngitis and tonsillitis, etc. It helps to clean *Srotoavarodha*, reduces infection and suppress symptoms of *Karnashula*.

Ayurveda described *Karnapoorna*, *Karna Dhoopan*, *Pramarjana*, *Lepa* and *Dhawana/ Prakshalana* as therapeutic measures to cure common ear problems.<sup>[6-8]</sup>

पारिभद्रोऽनिलश्लेष्मशोफमेदः कृमिप्रणत्।  
तत्पत्रं पित्तरोघ्नं कर्णव्याधिनाशनम्॥

The above mentioned quotation states that *Paribhadra* plant can be used for pacifying vitiated *Vata & Kapha Dosha*, it helps to relieves inflammation and useful in microbial infections. The medicinal properties of plant are depicted in **Figure 2**.



**Figure 2: Medicinal property of plant.**

**Role of Paribhadra Bark**

The bark of plant is considered useful for liver disorders, useful in fever, offers astringent, expectorant, diuretic, anti-inflammatory and anti-bacterial, etc. properties. Bark is used in liver ailments, fever and rheumatism.

The ancient science suggested uses of plant bark in ear problem, the ancient *Acharya* considered the bark of plant as ear tonic useful for *Karnaroga*.

**Method of Administration**

The fresh and dried barks soaked in water overnight and allow boiling/evaporating water using pressure cooker or other utensil. The concentrate store in glass bottle and used for *Karnashula*. The 3-4 drops twice daily can be used as ear drop for relieving *Karnashula*.

### Probable mode of action of plant

The plant work internally as *Kaphavatahara* and *Sthanika Chikitsa* acts on *Shringataka*, moreover antibacterial and antifungal effects provides *Krimihara* quality and reduces ear infections which is the major cause of ear problems and ear ache. The local action of plant provides *Vedhana Sthapana* action by virtue of its analgesic and anti-inflammatory activity. The antioxidant properties shield cells from damage brought on by free radicals and other highly reactive oxygen molecules.

The anti-infective, anti-inflammatory properties help to reduce infection and associated inflammation thus relieves severity of pain. The *Sthanika* effect improves local blood flow and improves natural healing process. The *Vedhana sthapana krimihara* property of plant mainly supports its action against *Karnashula*.

The analgesic, antipyretic and anti-inflammatory effect due to the presence of vitamins, flavonoids and polyphenols, etc. inhibits peripheral prostaglandins, which ultimately lessens pain. The increases blood flow in the tunica vascularis by local vasodilatation reduces otalgia associated with infections.

*Paribhadra* plant also described under *Aushadhi varga* and it offers enormous medicinal properties including analgesic, anti-inflammatory, anti-pyretic and anti-infective actions. The *Tikta & Katu Rasa* helps to cure pain and loosen toxins locally thereby facilitates their expulsion from ear. The *Laghu Guna* enhances reaches of drugs to every part of affected area and improves drug absorption for quick and prolongs action. The *Ushna Virya* acts as counter irritant to combat against pain and *Katu Vipaka* improves healing process as well as removal of debris and waste materials.

The *Kaphavatahara* action of plant reduces pathological progression of disease, *Krimighna* effect reduces infection which is the major cause of ear ache, *Deepana* effect relieves *Ama* detoxify *Mala*, *Shoolahara* effect of plant helps to relieve *Karnashoola*. *Paribhadra* offers therapeutic benefits in *Karnasula* by virtue of its local as well as systemic action that arises due to the penetration of active ingredients of plant.

### CONCLUSION

In Ayurvedic scriptures, a condition called *Karnashula* that is comparable to the symptom of otalgia as well as ear ache. Along with pain, other symptoms include difficulty in hearing, ear soreness, a feeling of fullness, heaviness, itching, etc. *Karnashula* need not always be linked to fever or ear. Most chronic cases only have *Karnasula*. *Paribhadra* helps to cure acute symptoms of *Karnasula*. *Kaphavatahara*, *Krimighna* and *Shoolahara* properties of *Paribhadra* plant contributed towards its *Karnashoolahara* effect.

### REFERENCES

1. Rukachaisirikul T, Tharibun C, Watkuolham S, Saekee A, Suksamrarn A. Biological activities of the chemical constituents of *Erythrina stricta* and *Erythrina subumbrans*. Arch Pharm Res., 2007; 30: 1398–403.
2. Gupta VK, editor. The Wealth of India (A dictionary of Indian raw materials and industrial product) 3rd ed. New Delhi: National Institute of Science Communication and Council of Industrial and Scientific Research; 2002.
3. Haque R, Ali MS, Saha A, Allimuzzaman M. Analgesic activity of methanolic extract of the leaf of *Erythrina variegata*. J Pharm Sci., 2006; 5: 77–9.
4. Kapoor LD. Ayurvedic Medicinal Plants, CRC Press, Delhi, 2005; 177-178. 12. Pt Hargovinda Shastri, Amaoksha of Amarsimha Chaukhambha Sanskrit Sansthan, Varanasi, 2008.
5. Laxmanchari Dhingari, Karna Nasa Shiro Roga, First edition, Delhi; Chaukhamba Sanskrit Pratisthana, D, 2005; 131.
6. Shrivastav. Shailaja, Sharangadhar Samhita with Hindi commentary, 3rd Edition, Varanasi; Chaukhamba Orientalia, 2001; 53.
7. Dr K Nishteshwar, Dr R Vidyanath. Sahasrayoga. Chaukhamba Sanskrit Series, Varanasi. Kashaya Prakarana, 14.
8. Kaviraj Shri Ambikadi Dutt Shastri. Bhaishajya Ratnavali ayurvedacharya, Chaukhamba prakashan Varanasi chapter 64 netra roga Chikitsa, Shloka, 100-102: 1000.
9. Variar PR. The Ayurvedic heritage of Kerala, Ancient Science of Life, 1985; 5(1): 54-64.
10. Nambudri DS. Chikitsamanjari. Edition, Sloka, Vidyarambam publishers, Alappuzha, 2015; 1(3): 491.
11. Nambudri DS. Chikitsamanjari. Edition, 2015, Sloka, Vidyarambam publishers, Alappuzha, 2015; 4(5): 491- 492.