Various skin lightening creams are used in Melasma. Hydroquinone (2–4%) based formulations applied accurately to pigmented areas at night for 2–4 months is useful.

The most successful formulation has been a combination of hydroquinone, tretinoin, and moderate potency topical steroid. This has been found to result in improvement or clearance in up to 60–80% of those treated.

Various new agents under investigation include zinc sulfate, mequinol, resveratrol, 4-hydroxy-anisole, 2,5-dimethyl-4-hydroxy-3(2H)-furanone and/or N-acetyl glucosamine and methimazole.

Oral medications for Melasma are under investigation, including tranexamic acid and glutathione.

Chemical peels with glycolic acid, lactic acid, laser therapy with pigment lasers (Q-switched Nd YAG, Q-switched ruby and Alexandrite devices) intense pulsed light (IPL), carbon dioxide or erbium: YAG resurfacing lasers, mechanical dermabrasion and microdermabrasion are used in resistant cases.

Melasma cannot be fully cured, however multiple treatment options available can improve the appearance.

Melasma tends to recur and recurrence rates are higher if sun protective measures are not adequately followed.

Disclaimer:
This leaflet is only for general patient information and is not intended for self-medication. There is no legal liability of IADVL arising out of any adverse consequences to the patient subsequent to its use for self-treatment of the disease. Images are just for the depiction of the condition and are not to be used for any other purpose.

Weblink to Patient Information Leaflet: www.iadvl.org / patient information leaflet
1. What is Melasma?
- Melasma (derived from Greek word- melas) is an acquired pigmented condition of sun-exposed skin, often manifesting as dark patches.
- Another term is chloasma which is often used to describe Melasma developing during pregnancy.

2. How does one get Melasma? What are the predisposing factors for Melasma?
- What causes Melasma is not yet clear. It is likely to occur when the colour-making cells in the skin (melanocytes) of the affected areas produce too much colour.
- Common contributory factors include sun exposure, pregnancy, drugs such as phenytoin, oral contraceptive pills or hormone replacement therapy, family history, hypothyroidism and thyroid autoimmunity.

3. Is Melasma hereditary?
- No, Melasma is not hereditary, however it is common in other family members.

4. How does Melasma appear?
- Melasma appears more commonly in women than men.
- It appears as brown, grey or black patches affecting the sun-exposed areas.
- Cheeks, forehead, upper lip, nose and chin, are involved usually in a symmetrical manner.
- Often, it may be limited to the cheeks and nose area. Other sun-exposed areas such as the neck and the forearms are uncommonly affected.
- The skin lesions are not itchy, but poses a significant cosmetic problem.

5. What should one do if he/she gets Melasma?
- All dark patches on the face are not Melasma.
- Consult a dermatologist who will confirm the diagnosis and start appropriate treatment.
- Self medication with steroid containing creams should be strictly avoided.

6. Are there any tests to confirm Melasma?
- Melasma is usually diagnosed by the clinical appearance of skin lesions.
- A dermatologist can confirm the diagnosis by simple examination with a Wood’s lamp or dermatoscope.
- Occasionally skin biopsy may be needed to differentiate Melasma from other pigmentary conditions.

7. What is the treatment for Melasma?
- Melasma responds poorly to treatment. Generally sun protection measures along with a combination of various treatment modalities (topical, oral, and procedural) is helpful.

**General measures**
- Year-round life-long sun protection: Use broad-spectrum very high protection factor (SPF 50+) sunscreen applied to the whole face every day. It should be reapplied every 2 hours if outdoors during the summer months. Alternatively or as well, use a make-up that contains sunscreen. Wear a broad-brimmed hat.
- Discontinue hormonal contraception.
- Camouflage with skin creams may help to reduce the cosmetic problem.