

Understanding skin ageing

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BUILDING A SKIN PRACTICE

- Treat Acne
- Treat Hormones
- Treat Nutritional Deficiencies
- Treat Toxic Metals
- Treat Pigmentation
- Treat Fine lines and Wrinkles
- Treat Oxidative Stress and Insulin Resistance
- Treat the patient from the Inside and Outside at the same time.

Skin ageing

As we age our skin ages too,

- it gets wrinkles due to **loss of hyaluronic acid and collagen,**
- it becomes rough due to **reduced corneocyte turnover rates,**
- it gets pigmented from **UV and pollution stress** as well as from **intrinsic oxidative stress,**
- its blood supply reduces due to **increased blood vessel fragility**
- **reduced oil making capacity which leads to** enlarged sebaceous glands. This make sebum thick and flow poorly making skin dry.
- **loss of moisturization** due to aquaporin channels atrophy leading to dry skin, fine lines and wrinkles

Neonatal/young human skin

Symmetric cell divisions
(parallel to the
basement membrane)

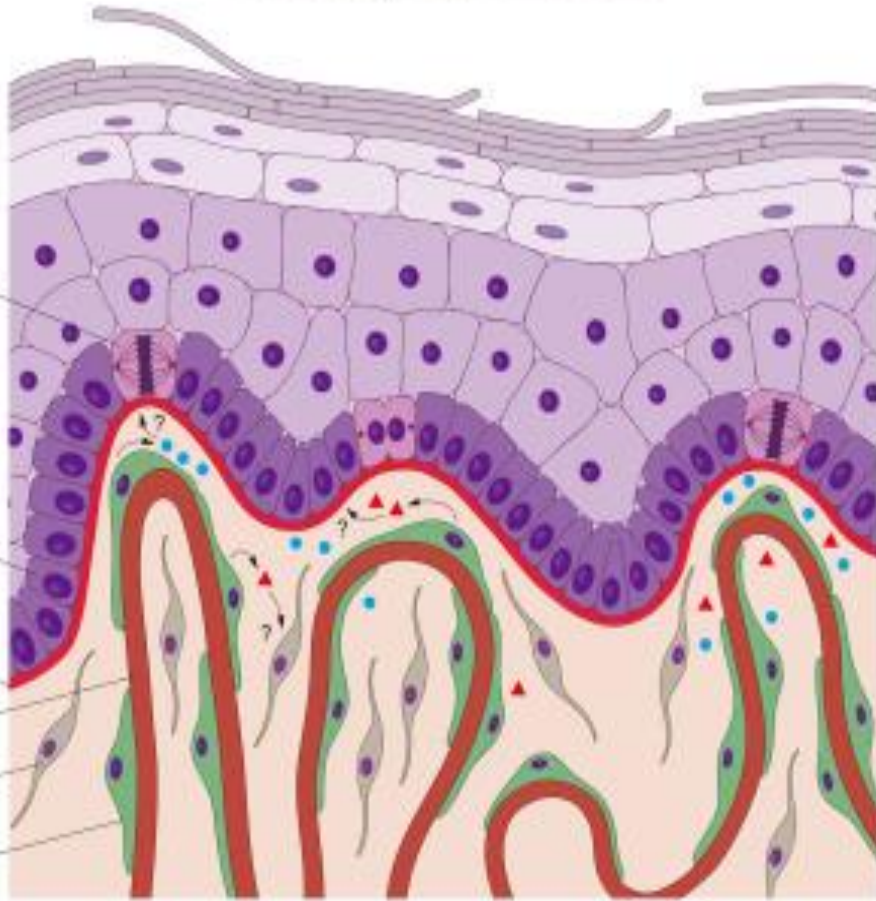
K15⁺ basal layer
(column-shaped basal
keratinocytes)

LAMA5
(solid and continuous)

Microvessels

Fibroblasts

Pericytes



Aged human skin

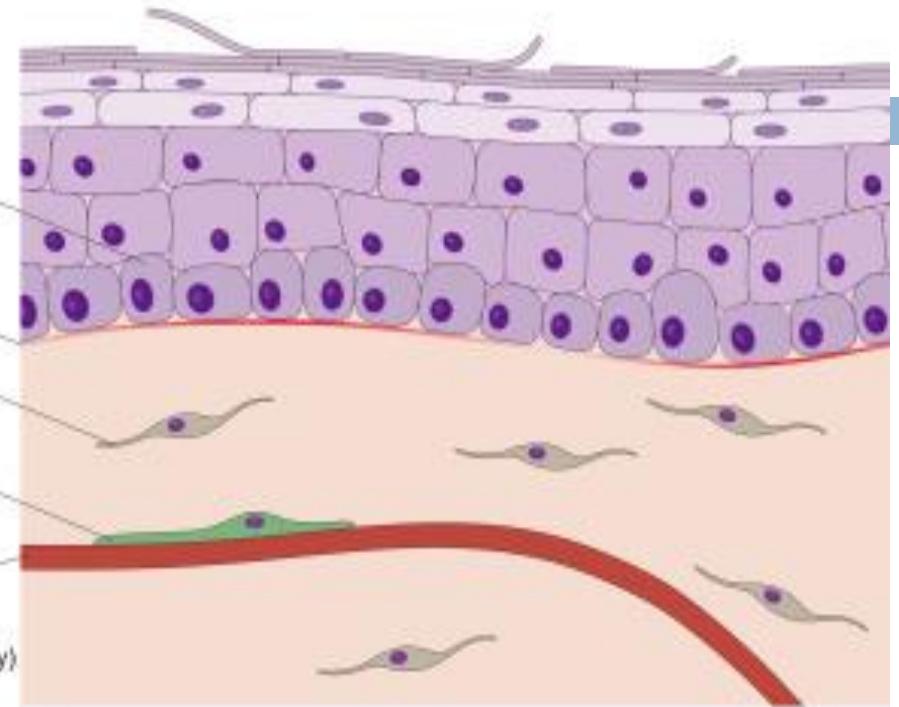
K15^{dim}- basal layer
(irregular-shaped basal
keratinocytes with
low proliferation)

LAMA5
(weak and discontinuous)

Fibroblasts
(decreased cellularity)

Pericytes
(decreased density
and impaired function)

Microvessels
(decreased microvasculature)



Reduction in the rete peg junctional height between the epidermis and dermis causing poor blood supply, slow turnover rate, open pores

MMP-1 and MMP-9 gene

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- MMP 1 and 9 are metalloproteinases which dissolve the collagen matrix
- As they increase due to ageing they dissolve the collagen matrix
- Thereby **the collagen and elastin levels drop**
- The organization of collagen and elastin into tight bundles fails and these fibres are arranged in a disorganized manner in aged skin
- The fibroblasts in the aged skin also don't form collagen

Other genetic changes with ageing

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- Aquaporin 3 decreases – thus reduced skin moisturization
- Col1A1 decreases – this reduces collagen formation
- CD44 which is a marker of skin T cells activity decreases- thus skin is prone to infections like recurrent HSV
- Sirtuin 1 decreases – causes decrease in cell turnover
- FLG gene reduces causing a decrease in filaggrin formation. This reduces epithelial barrier function and leads to itchy skin (atopic dermatitis)
- Increased tyrosine kinase formation – it helps to protect the inflammation in aged skin by blocking il 17 and tnf alpha but causes increased skin pigmentation as a side effect.

Intrinsic and extrinsic factors of skin ageing

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- insulin resistance
- toxic metals
- emotional stress
- abnormal hormones
- deficiency of selenium or glutathione
- UV exposure
- pollution stress

Skin pigmentation


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- Mercury toxicity
- Cadmium toxicity
- Gluten intolerance
- Oxidative stress
- Hormonal causes

Treating toxic metals

- ❑ Toxic metals can cause skin pigmentation and hair loss.
- ❑ Identify the toxic metal and then treat using the correct homeopathics.
- ❑ If mercury is present the patient may have hyperpigmentation which is brownish in color and present around the zygoma, the patient may have high or low blood pressure, the patient will be very temperature sensitive and will keep adjusting the ac temperature or feel cold easily. Use Merc Sol 30C

- ❑ If lead toxicity is present the pigmentation is blackish in color and the patient will be unable to sweat, constipation with goat like stool may be present. Use Plumbum Met 30c
 - ❑ If cadmium poisoning is present the patients pigmentation will be yellow in color, the patient will have leg pains after walking short distances also, alcoholics will have a lot of cadmium as will smokers. Use Cad Sul 30C
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- ❑ If arsenic is present the patient will be fatigued easily and will have frequent colds and throat pains which are better on drinking warm water. They will have low glutathione and dry scaly skin. Use Ars Alb 30C.
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Treating pigmentation

- ❑ **Sun damage or pollution** - In such cases the patient will have pigmentation on sun exposed areas, we can use Oral Gluthione and topical Tocyen here.
- ❑ Tocyen is very useful in pigmentation since it blocks melanin formation by 91%. The overall pigmentation reduces by 20% a month.
- ❑ **Nutritional deficiencies** - Pigmentation is commonly seen with low B12, here the patients will also have darkening of skin on fingers too. Low B12 causes rapid increase in melanogenesis. We should give B12 and Triticum Vulgaris 30C.

- ❑ **Low iron** - we can use Ferrum Met 3X + Ferrum Phos 30C
 - ❑ for those with renal anemia we can use Mag Carb and Klotho.
 - ❑ **Hormonal pigmentation** seen in post menopausal women is treated using Sepia + Caulophyllum + Arnica
 - ❑ If there is **insulin resistance** we can use Imusil as 2-0-2, it will also reduce belly fat.
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Treating hormonal issues

- ❑ **Low estrogen - add folliculinum and boron 6mg BD**
 - ❑ We can use Kreosotum 30C with low dose Progesterone in women with low Progesterone.
 - ❑ In women if there are fibroids the cause is Estrogen dominance and we should treat this using Fibroid Combo, Cardus Marianus 3X, Estrogen Inhibitor, Kreosotum and Merc Sol 30C.
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- ❑ In women with vaginal dryness we should use Folliculinum and VIP.
 - ❑ In post menopausal women we can also give them Carcinosin 30C to create an amazing head of hair and reverse ageing related hair loss.
 - ❑ In men if there is also erectile dysfunction we should use Top Pax.
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Treating fine lines and wrinkles

- ❑ Hormonal treatment may be required since estrogen plays a very important role in subcutaneous fat formation. Fix low sex hormones for improving wrinkles.
- ❑ Tocyen application plumps up the cheeks and reduces fine lines and wrinkles.
- ❑ Collagen pills as 10-0-10 help very rapidly reduce wrinkles.

- ❑ Increasing hyaluronic acid with Mag Sul 3X can help in those with low Magnesium. This will help in those with deep nasolabial folds.
 - ❑ Use Invisalign dental retainers or aligners in those with collapsed bite from tooth loss - this builds the jaw structure.
 - ❑ Treat osteoporosis if present using Kreosotum with the Osteoporosis Combo and Prolia low dose.
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Treating nutritional deficiencies

- ❑ Nutritional deficiencies such as low Zinc, Magnesium, low B12, low Iron, low Collagen, low Biotin, low Omega 3 should be identified and then treated.
- ❑ If low Zinc is present the Alkaline Phosphatase will be low and also the patient may have dry skin which itches and is only better when wetted or when a moisturizer is applied. Use Zincum Aceticum or Zincum Met.

- ❑ Low magnesium can cause hypersensitivity to sounds and touch with muscle cramps. Skin will be red and dry if magnesium is low. Use Mag Phos 3x
 - ❑ Low B12 can produce hyperpigmentation of skin, the patients may also have repigmentation even after Tocycen. Use b12 with Triticum vulgare 30c
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- ❑ Low Biotin will cause split ends in the hair
 - ❑ Low Omega 3 will cause chapped lips with skin peeling around the nail cuticle
 - ❑ Low Collagen will cause dry skin with dry frizzy hair.
Use Collagen pills.
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Treating oxidative stress and insulin resistance

- ❑ Use Akkermensia + Leptin Resistance
- ❑ Use Imusil as 2-0-2
- ❑ Use Glothione for oxidative stress

Treating the patient from inside out

- ❑ The skin health is a reflection of the body's internal health and hence using the remedies with Tocyen will help the patient
- ❑ Build a fantastic clinical practice using just these simple tips.
- ❑ Use these for yourself and family first to get the hang of the remedies and then expand to patients.

The patient will always come back to you because all their internal issues are also improving along with their skin health. Doctor shopping can hence be stopped