Short Communication

Optimizing acne care via teledermatology- Where do we stand?

Acne patients demonstrate high levels of social, psychological, and emotional impairment including suicidal ideation.[1] The global pandemic bought with it high levels of psychological distress, and it is well known that stress influences the activity of the pilosebaceous unit leading to acne.[2] Further, "do it yourself" (DIY) solutions flooding the internet meant that it was pertinent that the dermatologist not only initiate care, but administer due counselling and "on-going" care for acne patients at this time. The continuation of care of acne is possible via teledermatology, and it appears to be a common issue for which patients seek video consultations and are satisfied with their initial consult,[3] however video consultation has its limitations.

The pitfalls in teledermatology[4] may be translated to the acne model **(Table 1)**.

While teledermatology may pose a challenge in diagnosis of certain conditions it has shown acceptable diagnostic accuracy compared with clinic dermatology for conditions like acne.[3] Acne mimickers such as molluscum contagiosum and milia, which are usually simple to distinguish from acne, may lead to misdiagnosis during videoconsult with a general practitioner. Further, conditions such as sebaceous hyperplasia, lupus miliaris disseminated facei (LMDF), papular sarcoidiosis, reactive perforating collagenosis on the face can cause confusion and misdiagnosis during video consults even in experienced hands **(Figure 2)**.

Another significant pitfall while doing video consultation is poor quality photography, which limits ascertaining the extent and grade of acne. Moreover, at times the patient may not send photographs of acne extending to areas such as the trunk. Patients should be informed prior to the consult that photography should include standard daylight lighting, all areas involved, a full frontal and side views and a close up view of the lesions for appropriate grading of acne and treatment. The Total Inflammatory Lesion Count (TILC) has been stated to be a reliable measure used to track a patient's progress over time. [4]

Table 1 Pitfalls in teledermatology – translation into the acne model.

Pitfalls in practice	*The "acne model"*
Inability to properly diagnose	- Clinical diagnosis simple and sufficient. - Poor quality photographs limit ascertaining the grade of acne and sequelae. **(Figure 1).** - Acne mimickers may pose a problem.
Inability to complete the circle of care	- Lack of proper counselling. - Lack of discussion regarding the use of home remedies and DIY solutions. - Inability to carry out appropriate testing. - Lack of adherence and follow up by patient. - Inability to perform procedures for acne sequelae – scarring, pigmentation, post acne erythema.
Policy, legal risk and reimbursement for services/ cost.	

Figure 1 -**a)** good quality photograph, with complete face and neck visible, grade of acne and extent appreciable, **b)** close up shots for detailing of lesions in the same patient, **c)** moderate quality photographs, grade of acne appreciable, part of face visible, extent of disease not clear, **d)** poor quality photograph, out of focus, lesions unclear, extent of disease unclear.

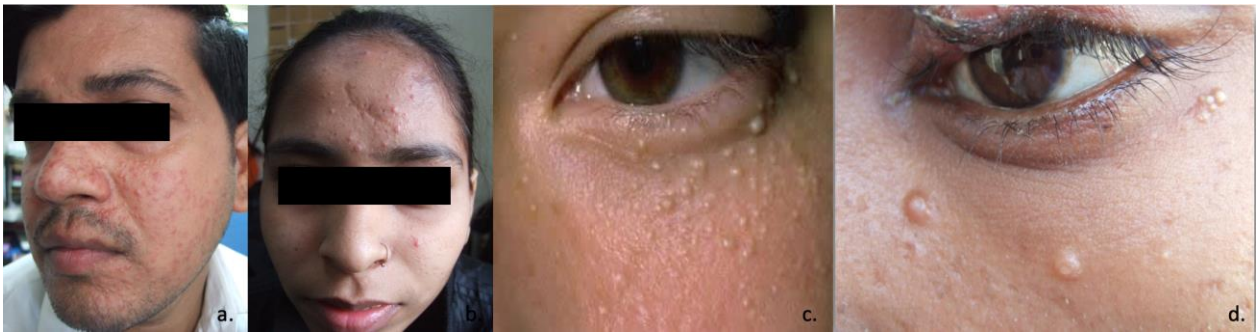

Figure 2 Acne mimickers posing a challenge during diagnosis on video-consults: **a)** case of lupus miliaris disseminated facei, **b)** reactive perforating collagenosis on the face, **c)** milia, **d)** molluscum contagiosum.

It has been demonstrated that delivering follow-up care to acne patients via an e-visit platform produced clinical outcomes equivalent to those of conventional office visits.[5] However, teledermatology patients were less likely to follow-up in the first 90 days compared to patients seen face-to-face and were more likely to be treated with oral antibiotics or oral spironolactone compared to patients seen face-to-face.[6] These findings would translate into better counselling at the start of treatment and information regarding complications associated with their medications on the dermatologists part.

Poor compliance in acne patients because of improper advice and lack of listening appears to be the top reason for treatment failures and this becomes more significant while doing online consultation. Dermatologists must spend time dispelling myths regarding hygiene and diet, talk about use of cosmetics, DIY and home remedies, use of masks and alcohol sanitizers on face and the use of isotretinoin in the current scenario. Discussion regarding pathogenesis in simple language, and allotment of a simple regimen which can be easily incorporated into the patient's daily routine goes a long way in inducing adherence. Further, the patients with clinical signs of hirsutism maybe advised hormonal testing and explained the importance of the same. Acne sequelae can be discussed and the dermatologists office may share links to information and videos regarding the same in order to prepare the patient once they are ready to visit the clinic physically.

Treatment of acne can change the life of an individual and ongoing care is essential. It is important that the dermatology fraternity embraces the change in these challenging times to provide optimal care to their acne patients.

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