Examining the role of extrinsic and intrinsic factors in patients with peristomal skin complications

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Peristomal Skin

• Primary function of skin is to protect the body from physical or chemical attacks - stratum corneum

• Normal Peristomal Skin should be intact, not excoriated, broken or show signs of irritation. It should look the same as the rest of the abdominal skin
Background

• Good stoma formation is crucial

• More common in those with an ileostomy and urostomy

• Days 21-40 crucial time period for peristomal skin complications - 63%

• Peristomal skin complications occur in 77% of patients

• 54% had more than one PSC

• 20% sought help
Is this Unique?

- 54% of the UK population experience skin problems yearly
- 14% seek medical advice
- 69% self treat
- Feelings of stress, anxiety, anger, depression, social isolation. Affects personal, professional and social life

All Party Parliamentary Group on Skin 2013
Factors affecting Skin Health

**Extrinsic**
- Sun and Ultra Violet Exposure
- Extrinsic Ageing
- Chemical stresses
- Mechanical stresses
- Environmental
Factors affecting Skin Health

**Intrinsic**
- Age
- Stoma type
- Health status
- Immune function
- Nutritional status
Review of Patients

- Number reviewed: 23
- Male 11, female 12
- Age: a. <1 = 2, b. 31-40 = 4, c. 41-60 = 4, d. 61-70 = 13
- Reason for surgery:
  Cancer 12, ulcerative colitis 5, Crohn’s 1, FAP 1, perforation 1, slow transit 1, imperforate anus 2
- Emergency: 6, elective 17
- Stoma type: Colostomy 10*, ileostomy 12, urostomy 3
- Co-morbidities:
  Diabetic 6, COPD 3, MI 2, hypertension 8, cholesterol 6, alcohol 4, psoriasis 2, bladder damage 1, menopause 10 ** nephrectomy 1, depression 1, dementia 1

* colostomy and ileostomy x1 ** surgically induced menopause x1
Age and Peristomal Skin

• Intrinsic – natural ageing
• Extrinsic - result of exposure
• Development of the skin structure - age related
• Infant skin -
  a. 30 weeks gest. 2-3 layers of stratum corneum
  b. Premature - ↓ acid mantle
  c. Flat dermal- epidermal junction
  d. ↑ ratio of surface area to body weight = ↑ TEWL + ↑ transepidermal absorption of topical agents
  e. Stratum corneum- reaches optimal thickness- age 20 years
Age and Peristomal Skin

- Mature skin
  a. Dermo-epidermal junction weakness
  b. Becomes less elastic
  c. Impact of photoageing - dries the skin
  d. Moisture content drops by 8-10% increased risk of loss of skin integrity
  e. Impact of diseases
Mechanical Stresses

• Medical Adhesive Related Skin Injury
• Histological changes to the skin from wearing a pouch
• Convex appliances
• Role of the ageing process
• Development of parastomal hernia
Chemical Stresses

- Skin protection – acid mantle
- Stoma type/ output
- Use of soaps- lotions and potions
- Infection
- Drugs cardiac, chemotherapy
Co- Morbidities

- Diabetics - third more likely to have skin issues
- High output stomas
- Kidney diseases
- Nutrition
- Menopause
- Memory issues
Conclusion

- Peristomal complications are complex
- Multiple and variable causes
- Development of a risk assessment tool should be achievable
  (additional work required)
References

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