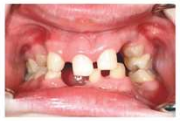
Confidence in Practitioner Ability to Recognize and Manage Clinical Variations of Ectodermal Dysplasia

Presenter: Crystal Obaretin, BS; Principal Investigator: Rahma Mungia, BDS, MS, DDPHRCS; Melanie Taverna, RDH, MSDH; Department of Periodontics

Background

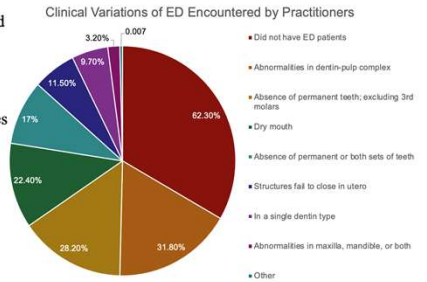
- Ectodermal dysplasia (ED)
  - a rare genetic condition that affects development of the teeth – hypodontia, enamel dysplasia, xerostomia, anodontia, etc.
  - each syndrome characterized by unique set of symptoms
  - International prevalence of approx. 7 per 10,000 births
  - U.S. prevalence of approx. 1 per 5,000 births
- Low prevalence and varying syndromes may contribute to lack of practitioner recognition and treatment of ED



Fig(1): 21-year old male patient with severe hypodontia (Hashem, Atef & O'Connell, Brian & Nunn, June & Oconnell, Anne & Garvey, Therese & O'Sullivan, Michael. (2010).

Results

- **62.3%** of practitioners stated that they do not have patients with ED
- **31.8%** of practitioners encountered abnormalities in the dentin-pulp complex
- **28.2%** of practitioners encountered absence of permanent teeth; excluding third molars



Conclusions

- Results from study show there is moderate confidence level in ability to recognize and manage patients with ED
- Several practitioners showed interest in participating in further ED studies
- Increased practitioner knowledge of clinical variations of ED
  - better quality of care for patients with ED
  - less unpleasant experience for patients and practitioners

Methods

- Dental Practice-Based Research Networks (South Texas Oral Health Network & National Dental PBRN)
  - 5-question QuickPoll
  - Data was aggregated and analyzed for frequency
  - Data was collected anonymously (switch these later)
  - N=281 practitioners participated in the survey

QuickPoll

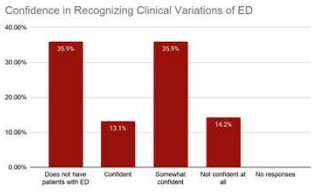
Ectodermal Dysplasia

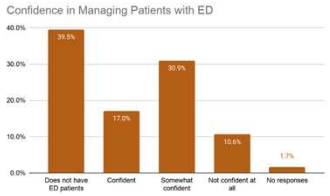
Ectodermal Dysplasia is a hereditary disorder associated with abnormal development of embryonic ectodermally-derived organs including teeth, nails, hair and sweat glands. It is a rare disease affecting about 1 in 5000 to 10,000 people and can cause dry mouth and in the most severe cases edentulism.

Please take a few moments to complete this 5-question quick poll to help us determine if this would be a possible future study in the Network.

*References can be found on our quick poll

Results





Citations

Fig (1): Hashem, Atef & O'Connell, Brian & Nunn, June & Oconnell, Anne & Garvey, Therese & O'Sullivan, Michael. (2010). Tooth agenesis in patients referred to an Irish tertiary care clinic for the developmental dental disorders. Journal of the Irish Dental Association. 56. 23-7.

Mungia, R. (2019, December). *December 2019 QuickPoll*. National Dental PBRN. https://www.nationaldentalpbrn.org/wp-content/uploads/2020/05/December-2019-Quick-Poll-ED.pdf.

UT Health San Antonio
Institute for Integration of Medicine & Science

The Robert A. Clark Frontiers of Translational Science Research Day 2021