

Prediction, prevention, and possible treatment of pathological permanent tooth eruption

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A short summary of highlights in the normal eruption process is presented.

Introduction: Examples of different eruption deviations are demonstrated (early, late, arrested, ectopic, etc.)

Prediction of eruption deviations

General health diagnostics. Information on family anamnesis, health condition, trauma, and other acquired conditions is important.

Oral investigation

Primary dentition: Intra-oral investigation and radiographs are mandatory for prediction. Examples are delayed eruption or previously arrested eruption, trauma, etc.

Permanent dentition: Intra-oral investigation and radiographs are mandatory for prediction. Examples are tooth malformations, agenesis, resorptions, etc.

Extra-oral investigation (skin, hair, nails, etc.)

Prevention of pathological tooth eruption

Possibilities to prevent pathological tooth eruption depends on the type of the eruption problem and of the phase in which the pathological tooth is observed.

Phases in normal eruption are:

Phase 1. The migration phase, in which the tooth bud finds its final site for development.

Phase 2. The pre-penetration phase in which the tooth has started root development but the crown follicle has not yet penetrated and "broken down" the overlying bone and gingival mucosa.

Phase 3. The post-penetration is the phase in which the crown follicle has penetrated the gingiva.

Several clinical examples are demonstrated and possible treatments during the different phases are highlighted.

References

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