

Table 1. *Dental Anatomy and Eruption Times*

Tooth	Deciduous (1/3,1/1,2-3/1-2,0/0)	Adult (1/3,1/1,1-2/1-2,3/3)
I1	birth	2 years
I2	birth	3 years
I3	birth	3 to 6 years
C1	+/-, usually -	2 to 7 years
PM3	birth	3.5 to 5 years
PM4	birth	3.5 to 5 years
M1	---	6 to 9 months
M2	---	1.5 to 2 years
M3	---	2.75 to 3.75 years

Table 2. Drugs used to provide anesthesia or analgesia in camelids.

Use	Drug	Dose	Route
Sedation	Xylazine HCl	0.1 to 0.3 mg/kg	IV, IM, S.C.
	Butorphenol tartrate	0.03 to 0.1 mg/kg	IV, IM, S.C.
	Metdetomidine	10 to 30 ug/kg	IM
General Anesthesia	Butorphenol +	0.03 mg/kg	IM
	Xylazine +	0.3 mg/kg	IM
	Ketamine	3 mg/kg	IM
	Tiletamine/zolazepam	4.7 to 6.0 mg/kg	IM
	Halothane	1 to 5 %	OTT or
	Isoflurane	1 to 5 %	NTT
Reversal Agents	Yohimbine	0.125 mg/kg	IV, IM
	Tolazoline <sup>†</sup>	1 to 2 mg/kg	IV, IM
	Atipamasole	0.125 mg/kg	IV

IV = intravenous; IM = intramuscular; OTT = orotracheal tube; NTT = nasotracheal tube

<sup>†</sup> Caution: Acute death has been observed after rapid IV administration of tolazoline at high dosages. Adapted from Sarno et al 1996; Waldrige et al 1997)

Table 3. In-vitro disc diffusion antimicrobial susceptibility results from common pathogens associated with tooth root infection in llamas and alpacas.

Bacteria	Ampicilli n	Ceftiofur	Florfenicol	Gentamicin	Penicilli n	Tetracycline	Trimethoprim- sulfadimethoxine
Actinomyces sp.	100 %	98 %	100 %	75 %	100 %	95 %	85 %
Actinomyces pyogenes	100 %	100 %	100 %	90 %	100 %	85 %	100 %
E. coli	50%	80 %	40 %	98 %	0%	73 %	74 %

Figure 1. Periodontal disease as evident by widening of the periodontal space in a 6-year-old llama.

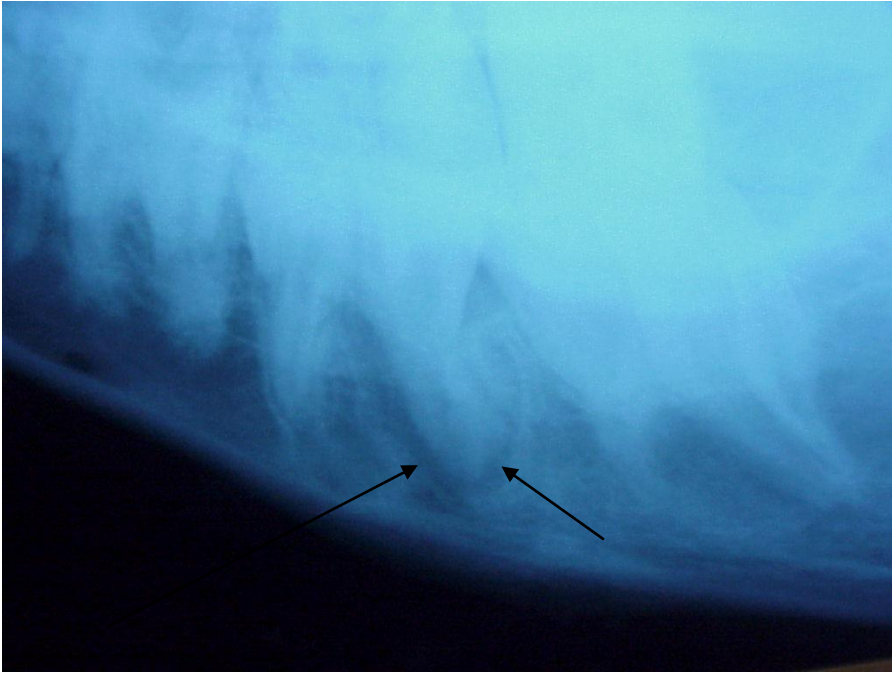


Figure 2. Abscess of PM4 associated with retained deciduous cap in a 1-year-old-llama.

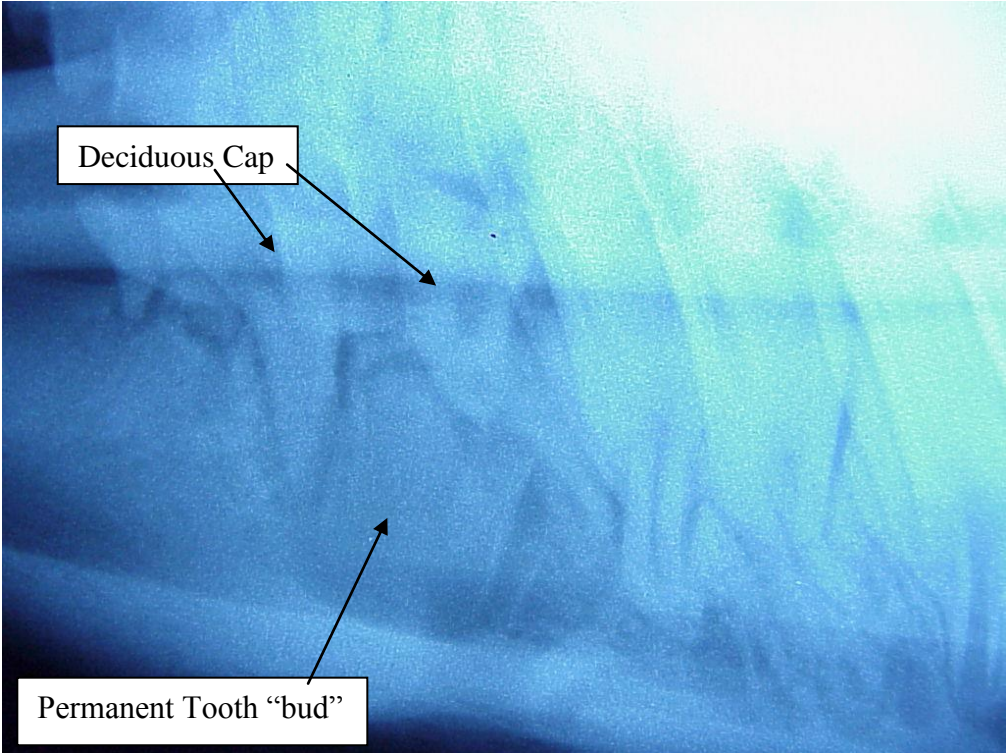


Figure 3. Radiographic oblique image of mandibular bone remodeling 6 months after removal of M2.

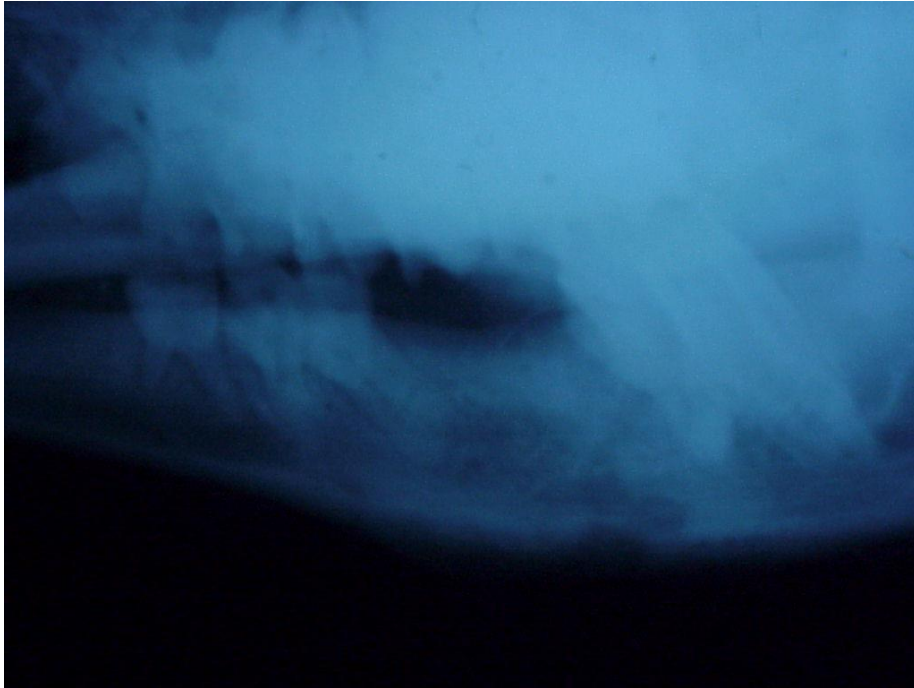


Figure 4. Mandible from a 6 year old female alpaca that died from hepatic lipidosis 3 years after surgical removal of M2. Note osseous remodeling and molar drift.

