

● 혈액응고 인자 XIII이 치주조직의 창상치유에 미치는 영향

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血液凝固因子 XIII이 創傷治癒에 미치는 영향을 연구하기 위하여, 家兎 15마리의 血漿에서 Lee & Chung(1976)의 방법으로 순수한 血漿凝固因子 XIII을 추출하고, 흑염소 1마리에서 1주일 간격으로 3회 토끼의 血漿凝固因子 XIII을 피하 주사한 뒤, 抗토끼血漿凝固因子 XIII-염소 면역 글로브린을 추출하였다. 家兎 63마리를 3群-對照群, 凝固因子 XIII 缺乏群, 凝固因子 XIII 投與群으로 나누고, 凝固因子 XIII-염소 면역 글로브린을 6시간 간격으로 6회 정맥주사하였고, 凝固因子 XIII 投與群은 凝固因子 XIII을 12시간 간격으로 3회 정맥주사 하였다. 各群의 齒齦切除후 그 치유과정을 光學 및 電子현미경으로 관찰하여 다음과 같은 결과를 얻었다.

1. 對照群에서는, 上皮組織의 再生은 切除후 5일, 肉芽組織의 形成은 14일, 纖維形成은 21일에도 현저하지 않았다.
2. 凝固因子 XIII 缺乏群에서는, 上皮組織의 再生과 肉芽組織의 形成이 14일에 일어났다. 纖維形成은 21일에도 현저하지 않았다.
3. 凝固因子 XIII 投與群에서는, 上皮組織의 再生은 3일, 肉芽組織의 形成은 5일, 纖維形成은 7일에 일어났다.

이상의 결과로 보아 血液凝固因子 XIII이 齒齦切除후 齒周組織의 創傷治癒에 관여한다고 생각한다.

● Chlorhexidine gluconate가 백서치은 창상치유에 미치는 영향에 관한 광학 및 전자현미경적 연구

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저자는 평균체중 220g되는 백서 수컷 75두를 날짜별로 5군(3일, 5일, 1주, 2주, 4주)으로 대별하고, 각군을 다시 2% 국소 도포군, 0.2% 구강세척군 및 대조군으로 나누어 치은절제술을 시행한 후 chlorhexidine gluconate의 창상 치유효과를 관찰한 결과 다음과 같은 결론을 얻었다.

1. 상피화는 대조군보다 chlorhexidine 사용군에서 더 빨리 진행되었다.
2. 염증세포 침윤은 대조군보다 chlorhexidine 사용군에서 현저히 감소되었다.
3. 창상 치유는 대조군보다 chlorhexidine 사용군에서 훨씬 더 촉진되었다.
4. chlorhexidine 사용군중 국소도포군이 구강세척군보다 더 좋은 창상 치유 효과를 나타내었다.
5. 창상 치유기간 동안 chlorhexidine gluconate에 의한 치유 저해는 관찰할 수 없었다.

The effect of coagulation factor on periodontal wound healing

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To investigate the effect of blood coagulation Factor XIII on periodontal wound healing, plasma coagulation factor XIII was purified from fresh plasma out of 15 white albino rabbits and anti-rabbit plasma coagulation Factor XIII-goat immunoglobulin from fresh plasma of a immunized black goat injected intradermally 3 times at intervals of 1 week with rabbit plasma coagulation Factor XIII, according to the method described by Lee & Chung(1976). Light and electron microscopic observations were made following gingivectomy in 63 male albino rabbits-in control, experimentally induced Factor XIII-deficient and Factor XIII-treated group. The results were as follows :

1. In control group, epithelialization was almost complete by day 5 ; granulation tissue formation by day 14 ; fibrogenesis by day 21.
2. In Factor XIII-deficient group, epithelialization was almost complete by day 14 ; granulation tissue formation by day 14. Fibrogenesis was not prominent on day 21.
3. In Factor XIII-treated group, epithelialization was almost complete by day 3 ; granulation tissue formation by day 5 ; fibrogenesis by day 7.

These results suggested that blood coagulation Factor XIII was involved in periodontal wound healing.

Light and electron microscopic study on the effect of chlorhexidine gluconate on gingival wound healing in rats

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This report describes the effect of chlorhexidine gluconate on the gingival wound healing after gingivectomy. The author collected 75 male albino rats of about 220gm of average body weight with healthy gingiva. The rats were divided into 5 groups by sacrifice date : 3 days, 5 days, 1 week, 2 weeks and 4 weeks, and each group was divided by the treatment method of chlorhexidine gluconate into 3 subgroups : topical application group, mouthrinsing group and control group. The rats were gingivectomized on the maxillary anterior region, treated with chlorhexidine gluconate and sacrificed to observe wound healing process with light and electron microscope. The findings were as follows.

1. Epithelialization was faster in the experimental group than in the control group.
2. Inflammatory cell infiltration was predominant in the control group compared with in the experimental group.
3. Wound healing was accelerated in the experimental group.
4. In the experimental group, the topical application group manifested the wound healing process more accelerated than the mouthrinsing group.
5. In the experimental group, inhibitory effect of chlorhexidine gluconate on the wound healing process was not observed during the experiment.