● 정상 및 염증치은의 혈류량 변동에 관한 연구

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치은 혈류량의 변화를 관찰하기 위해 저자는 경동맥 압박, 좌우로 고개를 경사시킬 때, 체위변화시킬 때 및 Lidocaine주사등의 조건을 주었다. 이때 치과용 resin을 이용하여 은제 원판극을 Palate 中央部位 및 좌 우측 상악 제1대구치, 제2소구치 사이 치은에 고정시켜 Physiograph上에 Rheogram을 이용하여 기록분석하여 上記와 같은 결론을 얻었다.

1. 정상치은에서는 편측 경동맥을 압박시 그 부위 치은 혈류량은 안정치 보다 감소하였으나 염증치은의 경우 염증이 심한 부위에서는 감소 현상을 볼 수 없었다.
2. 정상치은에서 편측으로 고개를 기울 때 기울인 쪽의 혈류량은 안정치 보다 증가하여 반대측은 감소하나 염증 치은에서는 기울인 반대측의 염증정도가 심할수록 안정치보다 더 높은 분률을 나타냈다.
3. 정상치은에서 체위변화시 누운 상태에서는 앉은상태보다 더 많은 혈류량의 증가를 보였으며 이는 염증치은에서도 同一한 양상을 보였다.
4. Iidocaine주사시 정상치은에서는 양측성으로 치은 혈류량이 감소하나 염증치은의 경우 염증이 심한 부위는 오히려 안정시 보다 더 높은 분률을 나타냈다.

● 인삼 및 Diazepam이 Lidocaine 독성에 미치는 영향에 관한 실험적 연구

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人蔘의 水浸 extract, methanol extract crude saponin fraction 및 Diazepam이 0.6% 및 2% Lidocaine 毒性에 미치는 影響 및 crude saponin fraction이 pentobarbital睡眠時間에 미치는 影響을 觀察하여 다음과 같은 結論을 얻었다.

1. 人蔘 crude saponin fraction(100mg/Kg)投與는 phenobarbital 睡眠時間을 顯著하게 延長하였다.
2. 人蔘水浸 extract methanol extract 및 crudesaponin fraction의 大量(100mg/kg)은 0.6% Lidocaine의 毒性을 增加하였고 2% lidocaine의 毒性은 減少하였다.
3. Diazepam(1.0mg/Kg 또는 5.0mg/Kg)은 0.6% Lidocaine의 毒性을 增加하였고 2.0% Lidocaine의 毒性을 감소하였다.

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Studies on the blood flow of the normal and inflamed attached gingiva by rheogram

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The object of this investigation is to study on the alternation of blood flow for inflammatory and non-inflammatory state in attached gingiva on maxillary lst molar region.

For the of experiment of rheogramatic change, two non-inflammatory state and 4-inflammatory state young man (age 22−24) were selected to have mouths clean and an abscense of restoration material. experiment were progressed with various condition which were tilting the head to right or left side, compression of cartoid arteries right or left side, postural change and 2% lidocaine injection.

All experiment were carried out by the use of modified denture plate which were facilitated by 3 silver plate that was connected with electrode each other. Common electrode was fixed at the portion of median sutrue line of palate and other electrodes were fixed in lst molar of attached gingival region bilaterally. the electrical conductivities which were evoked between common and exploring electrodes in both sides were detected and recorded on the physiography (Narco. Co) and high-gain preamplifier simultaneousely.

The following results were obtained by the method above described.

1. In normal attached gingiva, blood flow was decreased at the side of compressed portion but in inflammatory condition, blood flow was not decreased as compared with the control values.
2. In normal attached gingiva, tilted side was increased and opposite side was decreased in blood flow as compared with The control values, but in inflammatory condition, it was not similar to above result and the opposite side was increased blood flow as compared with control values.
3. In time of the postural change from sitting to lying, blood flow was increased as compared with control values.
4. In normal attached gingiva, blood flow was decreased in time of 2% lidocaine injection at the portion of maxillary tuberosity but in inflammatory condition, blood flow was not decreased as compared with control values.

It was considered that above mentioned phenomenon was manifested by the action of small dose epinephrine which affected to venous or venous stagnation.

The effects ginseng and diazepam on lidocaine toxicity

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Water and methanol extracts were obtained and crude saponin fraction fraction ated from panax

Ginseng and their effects in comparison with Diazepam on 0.6% and 2.0% lidocaine and procaine toxicity were observed in aggregated mice. at the same time, the effect of crude saponin fraction on pentobarbital sleeping time was observed.

The duration of righting reflex-loss induced by pentobarbital was markedly prolonged by the pretreatment of large dose(100mg/Kg) of crude saponin fraction.

Large dose of Ginseng water extract, methanol extract and crude saponin fraction increased 0.6% lidocaine toxicity, while decreased 2.0% lidocaine toxicity.

Diazepam(1.0mg/Kg or 5.0mg/Kg) increased 0.6% lidocaine toxicity, while decreased 2.0% lidocaine toxicity.

Study for effectiveness of pilocarpine and atropine to blood flow in the rabbit submaxillary gland

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This experiment was performed to study the effectiveness of cholinomimetic drug (pilocarpine) and cholinergic blocking drug(atropine) to blood flow in the rabbit submaxillary gland by means of impedance rheograph.

It was used that the jugular vein as a route of the drug administration and that the carotid artery to get the blood pressure by the pressure transducer(Narco Co.). The gland was intactly exposed alone and grounded on aluminum foil.

Fifteen rabbits about 2kgs of body weight were divided to three groups, to the first group atropine of last dosage 1mg, 3mg, 5mg/kg of body weight, pilocarpine of last dosage 0.05, 0.15, 0.25mg/kg for the second group and the third group was given pilocarpine of last dosage 0.05, 0.15, 0.25, 0.50mg/kg after blocking wath 2mg/kg of atropine.

Two needle electrodes were inserted into the gland with a proper distance and connected continuously to the impedance rheograph, high-gain preamplifier and physiograph to obtain rheogram on the physiograph.

Amplitude of experimental rheogram was compared to that of control.

The results were as follows :

1. The blood flow of submaxillary gland was not altered in atrophine group and heart rate was decreased in proportion to the concentrationa of the drug.
2. In pilocarpine group, the blood flow of submaxillary gland was increased but the heart rate was decreased in proportion to the concentration of the drug.
3. In atropine and pilocarpine group, the increase of blood flow was decreased markedly than that of pilocarpine group.