Simultaneous Allergic (Anaphylactic) and Embolic-Toxic Reactions by Accidental Intravascular Injection of Procaine-Penicillin

R.		Hoigné
A.		Krebs

University of Bern, Department of Internal Medicine (Director: Prof. Dr. W. Hadorn) and Department of Dermatology (Director: Prof. Dr. H. Kuske)

Authors' address: Dr. R. Hoigné Department of Internal Medicine, and Dr. A. Krebs, Department of Dermatology, University of Bern, Bern (Switzerland)

Three instances of simultaneous nonallergic and allergic (anaphylactic) reactions immediately after the intramuscular injection of Procaine-Penicillin are described.

The symptoms of the nonallergic, probably embolic-toxic reaction were tinnitus, visual disturbances, loss of consciousness, mental confusion and mortal fright. This syndrome was observed after Procaine-Penicillin and after Antihistamine-Penicillin.

The assumption that the nonallergic reaction is due to accidental intravascular injection of at least part of the preparation is confirmed by a report of erroneous injection of the Antihistamine-Penicillin into a cubital vein, which produced the same visual and acoustic symptoms.

The signs suspected of the allergic reaction were tachycardia, slight shock and in one patient a superficial, scarcely palpable pulse. Two patients showed an eosinophilia in the blood with respectively 35% and 16% eosinophiles; in one case, the reaction was followed by attacks of bronchial asthma. Skin tests with Penicillin-G or with Penicilloyl-Polylysin were positive.

The general significance of producing an anaphylactic reaction in a sensitized patient by an intramuscularly applied drug seeping into hurt vessels (backseepage) is discussed.

The reactions were observed after technically correct injections with trial aspiration. The method of von Hochstetter (injection into

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the gluteus medius and minimus muscles) was used. Its introduction did not reduce the frequency of the non allergic syndrome after Procaine-Penicillin.

B. Bibliography Hoigné

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