extensive, ephedrine alone will probably be enough while the blood volume gradually recovers at the expense of tissue fluids. Should it be extensive, it can be used as an emergency drug while transfusion or other important measures are in preparation.

Based on experimental results, it is advocated that ephedrine should be employed in surgical shock and hemorrhage, or as a prophylactic remedy in long operations.

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The experimental transfer of certain intestinal protozoa from man to monkeys.

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The species identity of intestinal amœbae harbored by monkeys with the intestinal amœbae of man presents a difference of opinion among protozoologists, one group believing them to be identical with the common species found in man, and another group believing them to present distinct species differences. It seems that this question can best be settled by investigation from three main angles, first, by a study of the morphological characteristics, second, by experimental transfer of the protozoa from one species of host to another closely related host, and third, by a comparative study of the various forms under artificial culture conditions.

This paper is a preliminary report of the experimental transfer of certain of the intestinal protozoa from man to monkeys. The routine examination of the faeces of seven monkeys from Southern China, belonging to the genus, Pithecus, showed the presence of protozoa indistinguishable morphologically from *E. dysenteriae, Endolimax nana, Endamoeba coli, Councilmania lafleuri, Iodamoeba bütschlii,* and *Chilomastix mesnili.* To the knowledge of the writer this is the first report of the presence of Councilmania and of Chilomastix in monkeys.

Table, showing result of feeding monkeys experimentally with cysts of *Endamoeba coli, Endolimax nana, Iodamoeba bütschlii, Giardia intestinalis,* and motile forms of *Trichomonas hominis.*

	Monkey No. 1.			Monkey No. 2.			Monkey No. 3.			Monkey No. 4.		
	Protozoa present before feeding	Protozoa fed	Protozoa present after feeding	Protozoa present before feeding	Protozoa fed	Protozoa present after feeding	Protozoa present before feeding	Protozoa fed	Protozoa present after feeding	Protozoa present before feeding	Protozoa fed	Protozoa present after feeding
Endamoeba dysenteriae	+		+	+		+	+		+	+		+
Endolimax nana	+		+	+	+	+		+	+	+		+
Endamoeba coli	+		+		+	+	+		+	+		+
Councilmania lafleuri							+		+			
Iodamoeba bütschlii					+	+		+	+	+		+
Giardia intestinalis		+			+			+			+	
Chilomastix mesnili		+	+		+	+	+		+	+		+
Trichomonas hominis		+			+	+						

All seven of the monkeys harbored amœbae morphologically indistinguishable from *E. dysenteriae,* and consequently no feeding experiments with *E. dysenteriae* from man could be performed. It should be noted, however, that successful transmission of *E. dysenteriae* from man to monkeys has been reported by Franchini[1] and Ujihara.[2] Certain of the monkeys of the present series were negative for one or more of the other protozoa in question, and feeding experiments were performed as indicated in the table.

In all cases only a single feeding was made which consisted of five cc. of dilute human faeces containing the protozoa indicated. The routine follow-up examination was made from three to six weeks after the feeding, and the protozoa recovered from the monkeys were morphologically identical with the protozoa fed to the monkeys.

It is seen by this table that infestations of *Endamoeba coli, Endolimax nana, Iodamoeba bütschlii, Chilomastix mesnili* and *Trichomonas hominis* of man were successfully established in monkeys which showed no previous infestation with these protozoa.

The ease with which this experimental transfer was accomplished lends evidence in favor of the close relationship and even of the probable species identity of the intestinal protozoa of man and monkeys.

[1] Franchini, G., Experimentelle Tropendysenterie. Die Entamoeba beim Affen. *Centralbl. f. Bakt., I abt.* (Orig.), 1912, lxi, 590-595, 1 pl.

[2] Ujihara, K., Studien über die Amöbendysenterie. *Zeitschr. f. Hyg. und Infs.—Krankheit,* 1914, lxxvii, 329.