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ภาคผนวก

ผนวก ก.

วิธีการคำนวณความแรงของสเตอรอยด์

การคำนวณ ใช้ Analysis of variance : one way classification

ขั้นตอนการคำนวณ จากตารางที่ 2

$$\begin{aligned}
 1. \text{ หาค่า Correction term } C & \\
 &= \frac{X^2}{rt} \\
 &= \frac{1340^2}{52 \times 19} = 1817.816 \qquad (1)
 \end{aligned}$$

$$\begin{aligned}
 2. \text{ Total sum of squares} \\
 \text{Total SS} &= \sum_{ij} X_{ij}^2 - C \\
 &= 1833.05 - 1817.816 \\
 &= 15.234 \qquad (2)
 \end{aligned}$$

$$\begin{aligned}
 3. \text{ Treatment sum of squares} \\
 \text{Treatment SS} &= \frac{X_1^2 + \dots + X_r^2}{r} - C \\
 &= 1820.94 - 1817.816 \\
 &= 3.124 \qquad (3)
 \end{aligned}$$

$$\begin{aligned}
 4. \text{ Error sum of squares} \\
 \text{Error SS} &= \text{Total SS} - \text{Treatment SS} \\
 &= 15.234 - 3.124 \\
 &= 12.110 \qquad (4)
 \end{aligned}$$

ตารางที่ 3 : ค่าทางสถิติของสเตอรอยด์ทั้ง 19 ชนิด

STEROIDS	$\sum Xi$	\bar{Xi}	$\sum X^2_{ij}$	$(\sum Xi)^2/52$
ARISTOCORT _{0.01%}	67.55	1.3	88.4	87.75
ARISTOCORT _{0.1%}	87.30	1.313	90.18	89.709
ARISTOCORT _{0.5%}	70.40	1.354	96.6	95.31
TRILOSIL	71.10	1.367	100.29	97.216
PREDNISIL	67.05	1.289	86.75	86.456
HISTACORT	67.00	1.288	86.66	86.327
TORPICORTE	74.85	1.439	108.06	107.74
BETNOVATE	71.50	1.375	98.83	98.313
CELESTODERM	70.50	1.356	97.07	95.582
TOPSYM	72.65	1.397	103.85	101.50
KENACORT	70.80	1.362	96.97	96.397
ULTRALAN	69.65	1.339	93.39	93.290
SUPRACORTIN	69.65	1.339	93.77	93.290
DRENISON	71.10	1.367	97.68	97.216
SYNALAR	70.50	1.356	96.34	95.582
TOPILAR	72.35	1.391	101.6	100.664
FUSZUN	69.50	1.336	93.71	92.889
HALOG	75.30	1.448	109.73	109.04
NERISONE	70.90	1.363	97.17	69.669
TOTAL	1340.15	25.779	1833.05	1820.94

ตารางที่ 4: Analysis of Variance: One-Way Classification with Equal Replication

for Data of Table 2

Source of Variation	df	SS	MS	F
Treatments	$t-1$ 18	3.124	0.174	$\frac{0.174}{0.012}$ 14.5
Error	$t(r-1)$ 969	12.110	0.012	
Total	$rt-1$ 987	15.234		

จากตาราง F, degree of freedom $\infty = 2.57$ หรือ 14.5
 แสดงว่า ข้อมูลที่หาได้มี Significant different

$$S_{\bar{x}} = \sqrt{\frac{0.012}{52}}$$

$$\approx 0.015$$

ตารางที่ 5 : Table Significant Studentized ranges for 5% Level ที่ error degree of freedom 969
และเรียงลำดับค่า means ของสเตอรอยด์คอร์ติซิมที่มีค่าจากน้อยไปหามาก

Value P	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SSR	2.77	2.92	3.02	3.09	3.15	3.19	3.23	3.26	3.29		3.34		3.38		3.41		3.44		3.47
LSR	.042	.044	.045	.046	.047	.048	.048	.049	.049	.049	.050	.050	.051	.051	.051	.0515	.052	.052	.052
Steroids	Hist	Pred.	A.02%	A.1%	Fusz.	Supra	Ult.	A.5%	Synal		Kena	Ner.	Dren.		Bet.	Topil.			Halog
\bar{X}	1.288	1.289	1.3	1.33	1.33	1.339		1.354	1.356		1.361	1.363	1.367		1.375	1.391	1.397	1.431	1.448

SSR = Significant Studentized ranges

LSR = least Significant ranges

P = number of means for range being tested

สเตอรอยด์คอร์ติซิมเรียงตามลำดับของค่ามัธยฐานจากค่าน้อยไปหาค่ามากมี

Histacort, Prednisil, Aristocort 0.02 %, Aristocort 0.1 %, Fuszun, Supracortin, ultralan.

Aristocort 0.5 %, Synalar, Celestoderm - V , Kenacort/A, Nerisone, Drenison, Wilosil

Betnovate, Topilar, Topsym, Torpicorte, Halog

มณฑก ข

ชนิดและส่วนประกอบของยาพื้นของสเตอรอยด์ครีมบางตัว

Synalar Cream base:

Sorbitan monostearate
 Sorbitan monooleate
 Polyoxyethylene sorbitan monostearate
 Stearic acid
 Propylene glycol
 Methyl paraben
 Propyl paraben
 Citric acid
 H₂O 83.3%

Aristocrt Cream base:

Glycerin
 Ethoxylated Stearyl alcohol
 Isopropyl palmitate
 Sorbitol Solution
 Lactic acid
 H₂O 78.0%

Torpicorte Cream base

Propylene glycol
 Cetyl alcohol
 Stearyl alcohol

Fatty alcohol Saturated 20°C

Water 85 %

Halog :

Glyceryl Monostearate NF.12

Cetyl alcohol NE

Isopropyl palmitate

Polysorbate 60

Propylene glycol

Myristyl Stearate

Water 78 %

Betnovate

Cetostearyl alcohol

Cetomacrogal

Paraffin

Water 71.5 %

Fuszum

Chemigen wax

White Petrolatum

Water 56 %

Kenacort - A :

Propylene glycol

Cetyl alcohol

Glyceryl monostearate

Spermaceti



Isopropyl palmitate

Polyoxyethylene sorbitan monostearate

Methyl paraben

Propyl paraben

Water 77.8 %

Trilosil

Cutina M.D.

Cetioli V

Emulsifying emulcin C

Methyl paraben

Propyl paraben

Propylene glycol

Glycerin

Water 67.8 %

ประวัติผู้เขียน

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คณะศึกษาศาสตร์ มหาวิทยาลัยมหิดล ปัจจุบันกำลังรับราชการในตำแหน่ง
อาจารย์ระดับ 4 ที่ แผนกวิชาเกษตรกรรม คณะศึกษาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

