## TrichoSciencePro ${ }^{\circ}$

## Patient name: Bob Johnson

## Outpatient card

Patient's first and last name: Bob Johnson
Age: 45
Sex: Male
Racial variations of hair European/Caucasian
Height: 1 m. 70 cm.
Weight: 70 kg .
BMI: 24.2
Occupation or professional environment: Technician
Referral from: Physician
Complaints: Major scalp problems and hair loss

## Questionnaire

## Hair and scalp condition:

Onset of hair loss: $\mathbf{1 5}$ years
Intensity of hair loss: Moderate or slightly-expressed
Duration of hairloss: Over 6 months
Hair thinning: Yes

## Male Pattern Baldness:

Hamilton-Norwood Scale, type: IV
Heredity factor in first degree relatives: Yes
Heredity factor in other relatives: None
Hair type: Oily
Hair form: Straight

Hair sort: Thin
Hair length and natural color: 10cm., brown-grey
Scalp condition: Greasy
Level of greasyness and excessive oils: $\mathbf{2}$
Condition of skin other than scalp: Normal
Acne: Absent
Nail plates: Normal
Special diet or dietary regulations: None
Presence of "bad habits" (regular smoking, alcohol, lack of sleep): smoking, $\mathbf{1 0}$ cigarettes a day

## Health conditions:

Recent and concomitant diseases and health conditions: Hypertension
Other: None
Surgeries, injuries, high fever, narcosis up to 6 months prior to hair loss onset: No
Administration of drugs potentially causing hair loss: No
Anabolic steroids usage: No
Prescription / non-prescription drugs on regular basis: Atenolol
Exposure to stress: moderate
Condition of nervous system: Anxiety

## Lab data / Blood tests:

Hemoglobin: Norm
Ferritin, serum iron: Norm
Transferrin, total iron binging capacity: Norm
TSH (Thyroid Stimulating Hormone): Norm

## Routine care and treatment efficacy:

Hair wash frequency: Every other day<br>Choice of shampoo: Pharmacy<br>Conditioner / Mask / Cream: Light<br>Hair styling: Mousse<br>Hair dyeing (if yes for how long and how often): None<br>Hair bleaching (if yes for how long and how often): None<br>Hair cut frequency: Every other month<br>Previous hair treatments: None<br>Food supplements / special vitamins: Multivitamins<br>Herbal remedies: Essential Oils<br>Procedures: Massage<br>Specific therapy: Laser<br>Injection therapy: Accupuncture

History of most effective treatment methods/products: None
Usage of topical minoxidil or similar treatments: None
Finasterides (Proscar, Propecia, etc.): None
Dutasterides (Avodarf, Avolve, etc.): None
Drug intolerances, if any: None
Provisional diagnosis: AGA, Dermatitis
Dandruff: Some
Seborrheic dermatitis: Areas of redness
Pruritius (itch): Mild
Sensitivity: Mild

## Trichoscopy: 2/19/2013 3:23:59 PM

## Parietal area estimation:

## Density/cm2:

Total: 165 (100\%)
Terminal: 107 (65\%)
Vellus: 59 (35\%)
Total calculated/19 sq.mm
Total: 31 (100\%)
Terminal: 20 (65\%)
Vellus: 11 (35\%)
Total follicular units: 22
Follicular units per sq.cm: 117.3
Single follicular units: 54.5\% (12 per 18.75 sq.mm)
Double follicular units: $45.5 \%$ (10 per 18.75 sq.mm)
Yellow dots total: 1 in 1 field of view
Hair density chart:


Total hairs: 165 per sq.cm.
Terminal hairs: 65\% (107 per sq.cm.)
Vellus hairs: 35\% [59 per sq.cm.]
Normal mean density for this hair type
Follicular units per sq.cm: 117.3
Sinqle follicular units: $54.5 \%$ [12 per 18.75 sq.mm]
Double follicular units: $\mathbf{4 5 . 5 \%}$ ( 10 per $18.75 \mathrm{sq} . \mathrm{mm}$ )
Yellow dots total: $\mathbf{1}$ in 1 field of view

Hair diameter:
Measured total: 31 hairs per 18.75 sq.mm
Mean diameter: All hairs $43+/-2.7 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs ( $>35 \mu \mathrm{~m}$ ) $52+/-2.2 \mu \mathrm{~m}$
Measured Terminal hairs (>35 $\mu \mathrm{m}$ ): 65\% ( 20 per 18.75 sq.mm)
Measured Vellus hairs (<35 $\mu \mathrm{m}$ ): 35\% (11 per 18.75 sq.mm)
Among Terminal hairs: Thin hairs ( $35-60 \mu \mathrm{~m}$ ): 85\%
Regular hairs (60-80 $\mu \mathrm{m}$ ): 15\%
Anisotrichosis: $43+/-14.5 \mu \mathrm{~m}$
Hair diameters chart:


Mean diameter: All Terminal hairs ( $>35 \mathrm{pm}$ )
$52+/-2.2 \mathrm{pm}$
Measured hairs diameter
Normal mean diameter for this hair type
Measured total: 31 hairs per $18.75 \mathrm{sq} . \mathrm{mm}$
Mean diameter: All hairs $43+/-2.7 \mathrm{pm}$
Measured Terminal hairs ( $>35 \mathrm{pm}$ ): 65\% ( 20 per
$18.75 \mathrm{sq} . \mathrm{mm}$ )
Measured Vellus hairs [ $<\mathbf{3 5} \mathrm{pm}$ ): 35\% (11 per 18.75
sq.mm]
Among Terminal hairs:
Thin hairs ( $35-60 \mathrm{~mm}$ ): 85\%
Regular hairs ( $60-80 \mathrm{pm}$ ): 15\%
Anisotrichosis: 43 +/- 14.5 mm


## Occipital area estimation:

## Density/cm2:

Total: 224 (100\%)
Terminal: 165 (74\%)
Vellus: 59 (26\%)

## Total calculated/19 sq.mm

Total: 42 (100\%)
Terminal: 31 (74\%)
Vellus: 11 (26\%)

## Total follicular units: 31

Follicular units per sq.cm: 165.3
Single follicular units: $77.4 \%$ ( 24 per 18.75 sq.mm)
Double follicular units: $16.1 \%$ ( 5 per 18.75 sq.mm)
Triple follicular units: $6.5 \%$ ( 2 per 18.75 sq.mm)
Pointed hairs total: 5 in 1 field of view
Yellow dots total: 8 in 1 field of view
Hair density chart:


Total hairs: $\mathbf{2 2 4}$ per sq.cm.
Terminal hairs: 74\% (165 per sq.cm.)
Vellus hairs: 26\% (59 per sq.cm.)
Normal mean density for this hair type
Follicular units per sa.cm: 165.3
Sinqle follicular units: $77.4 \%$ [24 per $18.75 \mathrm{sq} . \mathrm{mm}$ ] Double follicular units: $16.1 \%$ [5 per $18.75 \mathrm{sa} . \mathrm{mm}$ ] Triple follicular units: 6.5\% [2 per $18.75 \mathrm{sq} . \mathrm{mm}$ ]
Pointed hairs total: 5 in 1 field of view
Yellow dots total: 8 in 1 field of view

## Hair diameter:

Measured total: 42 hairs per 18.75 sq.mm
Mean diameter: All hairs $40+/-2.0 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs (>35 $\mu \mathrm{m}$ ) $46+/-1.4 \mu \mathrm{~m}$
Measured Terminal hairs (>35 $\mu \mathrm{m}$ ): 74\% (31 per 18.75 sq.mm)
Measured Vellus hairs ( $<35 \mu \mathrm{~m}$ ): 26\% (11 per 18.75 sq.mm)
Among Terminal hairs: Thin hairs (35-60 $\mu \mathrm{m}$ ): 97\%
Regular hairs (60-80 $\mu \mathrm{m}$ ): 3\%
Anisotrichosis: $40+/-12.8 \mu \mathrm{~m}$
Hair diameters chart:


Mean diameter: All Terminal hairs ( $>\mathbf{3 5} \mathrm{pm}$ )
46 +/- 1.4 pm
Measured hairs diameter
Normal mean diameter for this hair type
Measured total: $\mathbf{4 2}$ hairs per $18.75 \mathrm{sq} . \mathrm{mm}$
Mean diameter: All hairs $40+/-2.0 \mathrm{pm}$
Measured Terminal hairs ( $>35 \mathrm{pm}$ ): 74\% (31 per
$18.75 \mathrm{sq} . \mathrm{mm}$ )
Measured Vellus hairs ( $<\mathbf{3 5} \mathrm{pm}$ ): 26\% (11 per 18.75
sq.mm)
Among Terminal hairs:
Thin hairs ( $35-60 \mu \mathrm{~m}$ ): 97\%
Regular hairs ( $60-80 \mathrm{pm}$ ): 3\%
Anisotrichosis: $\mathbf{4 0 + / - 1 2 . 8 ~} \mathrm{mm}$


Hair diameter:

Parietal area
Occipital area



Mean diameter: All Terminal hairs ( $>\mathbf{3 5} \mathrm{nm}$ ) $55+/-5.5 \mathrm{pm}$

Measured hairs diameter
Normal mean diameter for this hair type

Mean diameter: All Terminal hairs [ $>35 \mathrm{pm}$ ) 61 +/- 2.4 pm

Normal mean diameter for this hair type
Measured total: 18 hairs per 2.34 sq.mm
Mean diameter: All hairs $56+/-3.9 \mathrm{pm}$
Measured Terminal hairs ( $>35 \mathrm{~mm}$ ): 89\% ( 16 per 2.3 .
sq.mm]
Measured Vellus hairs [ $<\mathbf{3 5} \mathrm{pm}$ ): 11\% [2 per 2.34
sq.mm]
Among Terminal hairs:
Thin hairs ( $35-60 \mathrm{~mm}$ ): 38\%
Regular hairs ( $60-80 \mathrm{pm}$ ]: 62\%
Anisotrichosis: $56+/-15.6 \mathrm{pm}$

Parietal area (window: 1):


- Hair diameter in parietal area ( $\mu \mathrm{m}$ ):

Measured total: 8 hairs per 2.34 sq.mm
Mean diameter: All hairs $45+/-6.2 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs ( $>35 \mu \mathrm{~m}$ ) $55+/-5.5 \mu \mathrm{~m}$
Measured Terminal hairs ( $>35 \mu \mathrm{~m}$ ): $62 \%$ ( 5 per 2.34 sq.mm)
Measured Vellus hairs $(<35 \mu \mathrm{~m}): 38 \%$ ( 3 per 2.34 sq.mm)
Among Terminal hairs: Thin hairs (35-60 $\mu \mathrm{m}$ ): 60\%

Regular hairs ( $60-80 \mu \mathrm{~m}$ ): $40 \%$
Anisotrichosis: 45 +/- $15.2 \mu \mathrm{~m}$

Occipital area (window 1):


## - Hair diameter in occipital area( $\mu \mathrm{m}$ ):

Measured total: 18 hairs per 2.34 sq.mm
Mean diameter: All hairs $56+/-3.9 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs ( $>35 \mu \mathrm{~m}$ ) $61+/-2.4 \mu \mathrm{~m}$
Measured Terminal hairs ( $>35 \mu \mathrm{~m}$ ): $89 \%$ ( 16 per $2.34 \mathrm{sq} . \mathrm{mm}$ )
Measured Vellus hairs ( $<35 \mu \mathrm{~m}$ ): 11\% ( 2 per 2.34 sq.mm)
Among Terminal hairs: Thin hairs (35-60 $\mu \mathrm{m}$ ): $38 \%$
Regular hairs ( $60-80 \mu \mathrm{~m}$ ): $62 \%$
Anisotrichosis: $56+/-15.6 \mu \mathrm{~m}$

## - Scalp study (high magnification) has detected:

Sensitive Scalp


- Hair root study has detected:

Anagen Hair


- Hair shaft study has detected:

Monilethrix


## Phototrichogram: 2/21/2013 4:24:50 PM

## Parietal area

## Phototrichogram:

Total Anagen hairs: 68\% ( 26 per 27.00 sq.mm)
Total Telogen hairs: $32 \%$ ( 12 per 27.00 sq.mm)
Terminal among Anagen: 65\%
Terminal among Telogen: 50\%
Vellus among Anagen: 35\%
Vellus among Telogen: 50\%
Mean diameter of Terminal among Anagen: $58 \mu \mathrm{~m}$
Mean diameter of Terminal among Telogen: $50 \mu \mathrm{~m}$
Mean diameter of Vellus among Anagen: $34 \mu \mathrm{~m}$
Mean diameter of Vellus among Telogen: $29 \mu \mathrm{~m}$
Hair growth rate:
First length value: 136
Second length value: 836
Time period between measurements: 48 hour
Hair growth rate: $350 \mu \mathrm{~m}(0.35 \mathrm{~mm})$ per 24 hours
Phototrichogram chart:


Total Anagen hairs: 68\% [26 per 27.00 sq.mm)
Total Telogen hairs: $\mathbf{3 2 \%}$ ( 12 per 27.00 sq.mm)
Terminal among Anagen: 65\%
Terminal among Telogen: 50\%
Vellus among Anagen: 35\%
Vellus among Telogen: 50\%

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## Density/cm2:

Total: 159 (100\%)
Terminal: 104 (65\%)
Vellus: 56 (35\%)

## Total calculated/27 sq.mm

Total: 43 (100\%)
Terminal: 28 (65\%)
Vellus: 15 (35\%)

## Total follicular units: $\mathbf{2 8}$

Follicular units per sq.cm: 103.7
Single follicular units: 57.1\% (16 per 27.00 sq.mm)
Double follicular units: $42.9 \%$ ( 12 per 27.00 sq.mm)
Hair density chart:


Total hairs: 159 per sq.cm.
Terminal hairs: 65\% (104 per sq.cm.]
Vellus hairs: 35\% [ $\mathbf{5 6}$ per sq.cm.]
Normal mean density for this hair type
Follicular units per sa.cm: 103.7
Sinqle follicular units: $57.1 \%$ [16 per 27.00 sq.mm]
Double follicular units: $\mathbf{4 2 . 9 \%}$ ( 12 per $27.00 \mathrm{sq} . \mathrm{mm}$ )

## Hair diameter:

Measured total: 43 hairs per 27.00 sq.mm
Mean diameter: All hairs $48+/-2.4 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs ( $>40 \mu \mathrm{~m}$ ) $56+/-2.2 \mu \mathrm{~m}$
Measured Terminal hairs ( $>40 \mu \mathrm{~m}$ ): 65\% ( 28 per 27.00 sq.mm)
Measured Vellus hairs ( $<40 \mu \mathrm{~m}$ ): 35\% (15 per 27.00 sq.mm)
Among Terminal hairs: Thin hairs ( $40-60 \mu \mathrm{~m}$ ): 64\%

Regular hairs (60-80 $\mu \mathrm{m}$ ): 36\%
Anisotrichosis: $48+/-15.1 \mu \mathrm{~m}$

Hair diameters chart:


Mean diameter: All Terminal hairs ( $>\mathbf{4 0} \mathrm{pm}$ ) $\mathbf{5 6 + / - 2 . 2 ~} \mathrm{pm}$
Measured hairs diameter
Normal mean diameter for this hair type
Measured total: $\mathbf{4 3}$ hairs per $\mathbf{2 7 . 0 0}$ sq.mm
Mean diameter: All hairs $48+/-2.4 \mathrm{pm}$
Measured Terminal hairs ( $>40 \mathrm{pm}$ ): 65\% ( 28 per $27.00 \mathrm{sq} . \mathrm{mm}$ ]
Measured Vellus hairs ( $\mathbf{4 0} \mathrm{mm}$ ): 35\% [ 15 per 27.00 sq.mm]
Among Terminal hairs:
Thin hairs ( $40-60 \mathrm{~mm}$ ): 64\%
Regular hairs ( $60-80 \mathrm{~mm}$ ): 36\%
Anisotrichosis: 48 +/- 15.1 mm

Field of view - 1


## Occipital area <br> Phototrichogram:

Total Anagen hairs: 88\% (45 per 27.00 sq.mm)
Total Telogen hairs: $12 \%$ ( 6 per 27.00 sq.mm)
Terminal among Anagen: 80\%
Terminal among Telogen: 67\%
Vellus among Anagen: 20\%
Vellus among Telogen: 33\%
Mean diameter of Terminal among Anagen: $68 \mu \mathrm{~m}$
Mean diameter of Terminal among Telogen: $60 \mu \mathrm{~m}$
Mean diameter of Vellus among Anagen: $38 \mu \mathrm{~m}$
Mean diameter of Vellus among Telogen: $38 \mu \mathrm{~m}$

## Hair growth rate:

First length value: 183
Second length value: 771
Time period between measurements: 48 hour
Hair growth rate: $294 \mu \mathrm{~m}(0.29 \mathrm{~mm})$ per 24 hours


Total Anagen hairs: $\mathbf{8 2 \%}$ (45 per 27.00 sq.mm)
Total Telogen hairs: 11\% [ 6 per $27.00 \mathrm{sq} . \mathrm{mm}$ ]
Terminal among Anagen: 80\%
Terminal among Telogen: 67\%
Vellus among Anagen: 20\%
Vellus among Telogen: 33\%

Mean diameter of Terminal among Anagen: 68pm
Mean diameter of Terminal among Teloqen: 60 pm
Mean diameter of Vellus among Anagen: 38pm
Mean diameter of Vellus among Teloqen: 38pm
Hair growth rate: 294 mm [ 0.29 mm ] per 24 hours

## Density/cm2:

Total: 233 (100\%)
Terminal: 178 (76\%)
Vellus: 56 (24\%)
Total calculated/27 sq.mm
Total: 63 (100\%)
Terminal: 48 (76\%)
Vellus: 15 (24\%)
Total follicular units: 43
Follicular units per sq.cm: 159.3
Single follicular units: $72.1 \%$ ( 31 per 27.00 sq.mm)
Double follicular units: $23.3 \%$ ( 10 per 27.00 sq.mm)
Triple follicular units: 4.7\% (2 per 27.00 sq.mm)

## Total perifollicular signs 1

Yellow dots total: 1 in 1 field of view

Hair density chart:


Total hairs: $\mathbf{2 3 3}$ per sq.cm.
Terminal hairs: 76\% [178 per sq.cm.]
Vellus hairs: 24\% ( $\mathbf{5 6}$ per sq.cm.)
Normal mean density for this hair type
Follicular units per sa.cm: 159.3
Sinqle follicular units: $72.1 \%$ [31 per $27.00 \mathrm{sq} . \mathrm{mm}$ ] Double follicular units: $\mathbf{2 3 . 3 \%}$ [10 per $27.00 \mathrm{sq} . \mathrm{mm}$ ] Triple follicular units: $4.7 \%$ [ 2 per $27.00 \mathrm{sq} . \mathrm{mm}$ ]
Yellow dots total: 1 in 1 field of view

## Hair diameter:

Measured total: 62 hairs per 27.00 sq.mm
Mean diameter: All hairs $61+/-2.2 \mu \mathrm{~m}$
Mean diameter: All Terminal hairs ( $>40 \mu \mathrm{~m}$ ) $68+/-1.3 \mu \mathrm{~m}$
Measured Terminal hairs ( $>40 \mu \mathrm{~m}$ ): 77\% (48 per 27.00 sq.mm)
Measured Vellus hairs ( $<40 \mu \mathrm{~m}$ ): 23\% (14 per 27.00 sq.mm)
Among Terminal hairs: Thin hairs ( $40-60 \mu \mathrm{~m}$ ): 12\%
Regular hairs (60-80 $\mu \mathrm{m}$ ): 81\%
Thick hairs (>80 $\mu \mathrm{m}$ ): 6\%
Anisotrichosis: $60+/-16.9 \mu \mathrm{~m}$
Hair diameters chart:


Mean diameter: All Terminal hairs ( $>40 \mathrm{pm}$ ) $68+/-1.3 \mathrm{pm}$
Measured hairs diameter
Normal mean diameter for this hair type
Measured total: 62 hairs per 27.00 sq.mm
Mean diameter: All hairs $61+/-2.2 \mathrm{pm}$
Measured Terminal hairs ( $>40 \mathrm{~mm}$ ): 77\% ( 48 per $27.00 \mathrm{sq} . \mathrm{mm}$ )
Measured Vellus hairs ( $\mathbf{4 0} \mathrm{mm}$ ): 23\% ( 14 per $27.00 \mathrm{sq} . \mathrm{mm}$ ]
Among Terminal hairs:
Thin hairs ( $40-60 \mu \mathrm{~m}$ ): 12\%
Regular hairs ( $60-80 \mathrm{~mm}$ ): 81\%
Thick hairs ( $>80 \mathrm{pm}$ ): 6\%
Anisotrichosis: 60 +/- 16.9 pm

## Field of view - 1




## Trichogram: 2/19/2013 6:44:16 PM

Parietal area (window: 1):



## Occipital area (window 1):



|  | Parietal area |  |  |  | Occipital area |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Epilated hair type | Absolute amount |  | \% | Norm | Absolute amount |  | \% | Norm |
| Anagen | 4 | 40 | Total | To | 4 | 50 | Total | To |


| Dysplastic Anagen | 2 | 20 | Anagen 60 | 95\% | 0 | 0 | Anagen 63 | 95\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Broken Anagen | 0 | 0 |  |  | 1 | 13 |  |  |
| Anagen with papilla | 0 |  | 0 | 0\% | 0 |  | 0 | 0\% |
| Telogen | 4 |  | 40 | $\begin{gathered} \text { To } \\ 18 \% \end{gathered}$ | 2 |  | 25 | $\begin{gathered} \text { To } \\ 18 \% \end{gathered}$ |
| Catagen | 0 |  | 0 | To 3\% | 1 |  | 13 | To 3\% |
| Dystrophic | 0 |  | 0 | To 4\% | 0 |  | 0 | To 4\% |
| Sum | 10 |  |  |  | 8 |  |  |  |

## Dermatoscopy: 2/19/2013 4:41:58 PM

- General Dermatoscopy study identified specialty signs as follows:

Prurigo nodularis


- Pigmented lesions study identified specialty signs as follows:

Lentigo Simolex


## ABCD algorithm of melanoma and other tumors evaluation GDI (General Dermatoscopic Index)

| Criteria features | Score | Coefficient | Enter points | Results |
| :---: | :---: | :---: | :---: | :---: |
| Asymmetry <br> In perpendicular axes: contour, colours and structures | 0-2 | 1.3 | 1 | 1.3 |
| Borders <br> 8 segments: abrupt ending of pigment pattern | 0-8 | 0.1 | 1 | 0.1 |
| Colours <br> White, red, light-brown (tan), dark-brown, blue-grey, black | 1-6 | 0.5 | 2 | 1 |
| Differential structural components or Dermoscopic structures (pigment network, structureless areas, dots, aggregated globules,branched streaks) | 1-5 | 0.5 | 1 | 0.5 |
| Total score | Benign |  |  | 2.9 |

ABC algorithm of melanoma and other tumors evaluation (A - asymmetry, B - clarity of boundaries, C - color)

| Diagnostic criteria | Criteria features | Evaluation | Mark if <br> applicable |
| :---: | :---: | :---: | :---: |
| Asymmetry on one axis | Boundaries of lesion | 1 | $*$ |
| Asymmetry on one axis | Disposition of dermatoscopic elements | 1 |  |
| Boundaries | Sharp separation of pigment grid over $1 / 4$ of | 1 |  |


|  | lesion perimeter |  |  |
| :---: | :---: | :---: | :---: |
| Color | White <br> Red <br> Beige <br> Dark-brown <br> Blue-black <br> Black | 1 | * |
| Dermatoscopic elements in lesion | Three and more <br> Pigment grid <br> Homogeneous zones (over 10\% of lesion area) <br> Stripes (more than two) <br> Granules (more than two) <br> Black-brown dots (more than two) | 1 |  |
| Evolution of tumors | Lesion changes within 3 month | +1 |  |
|  | No data about changes | 0 |  |
|  | No changes within 3 month | -1 | * |
| Results |  |  | 1 |

Algorithm for melanoma and other tumor estimation by Argeniziano

| Criteria | Features | Points | Mark if applicable |
| :---: | :---: | :---: | :---: |
| Evolution of tumors |  |  |  |
| Atypical pigment grid | By color, wall thickness and cell size | 2 |  |
| A shroud or bluewhite veil | Distinguish from dermatoscopic sings of pigment regression in skin lesion.Morphological substrate of a shroud or bluewhite veil is represented by foci of acanthosis and hypergranulosis over the clusters of melanocytes in dermis. | 2 |  |
| Atypical vessels | Atypical convoluted linear and dotted vessels | 2 |  |
| Small criteria |  |  |  |
| Atypical stripes | By color, shape and location | 1 |  |
| Dots/granules, | By color and size | 1 | * |


| unevenly distributed |  |  |  |
| :---: | :---: | :---: | :---: |
| Blots (ink stains) | Assymetric and atypical by color | 1 |  |
| Dermatoscopic signs <br> of pigment regression <br> in skin lesion | Scar-like patches of depigmentation and dots, often <br> described as "pepper-like" in pattern | 1 |  |
|  | Results |  | 1 |

## Trichometry (hair wash test) \Patient: Bob Johnson:

Patient current hair length (cm): 10

| Hair length | Hair quantity | Percentage of hair |
| :--- | :--- | :--- |
| Under $3 \mathrm{~cm}:$ | 5 | 38 |
| $3-5 \mathrm{~cm}:$ | 3 | 23 |
| Over $5 \mathrm{~cm}:$ | 5 | 38 |
| Total hair shedded: | 13 | 100 |

## Trichometry (growing hair test) \Patient: Bob Johnson:

Date of hair sampling : 21.02.2013

| Hair length | Total amount | Intensity of monthly hair loss |
| :--- | :--- | :--- |
| Over 5 cm .long hair | 42 |  |
| $4-5 \mathrm{~cm}$. | 8 | September - October - 8971 |


| $3-4 \mathrm{~cm}$. | 6 | October - November - 6728 |
| :--- | :--- | :--- |
| $2-3 \mathrm{~cm}$. | 5 | November - December -5607 |
| $1-2 \mathrm{~cm}$. | 7 | December - January - 7850 |
| Total | 68 | Total: 29156 |

## Hair Calculator \Patient: Bob Johnson:

Total mean quantity of scalp hairs(racial norms): 100,000 (70,000-130,000)
Total actual quantity of scalp hairs: $76258+/-7600$
Total actual quantity of Terminal hairs: 54580 +/-5500
Total actual quantity of Vellus hairs: $21677+/-2200$
Mean hair growth rate, mm/24hrs.(racial norms): 0.3-0.4
Actual hair growth rate in Parietal area, $\mathrm{mm} / 24 \mathrm{hrs} .: ~ 0.35$
Actual hair growth rate in Occipital area, mm/24hrs.: 0.29
Total mean daily rate of hair loss: 114
Total actual quantity of hair shed per 24hrs: 150
Total actual quantity of Terminal hair shed per 24hrs: 80
Total actual quantity of Vellus hairs shed per 24hrs: 70

## Hospital Anxiety and Depression Scale:

1. I feel tense or 'wound up':
2. I still enjoy the things I used to enjoy:
3. I get a sort of frightened feeling as if something awful is about to happen:

| 4. I can laugh and see the funny side of things: | Not quite so much now |
| :--- | :--- |
| 5. Worrying thoughts go through my mind: | A great deal of the time |
| 6. I feel cheerful: | Not at all |
| 7. I can sit at ease and feel relaxed: | Nearly all the time |
| 8. I feel as if I am slowed down: | Very often |
| 9. I get a sort of frightened feeling like 'butterflies' in the stomach: | Occasionally |
| 10. I have lost interest in my appearance: | I don't take as much care as I |
| 11. I feel restless as I have to be on the move: | Quite a lot |
| 12. I look forward with enjoyment to things: | As much as I ever did |
| 13. I get sudden feelings of panic: | Very often indeed |
| 14. I can enjoy a good book or radio or TV program: | Not often |
| Conclusion: |  |
| Subclinical depression. Clinical anxiety. |  |

## Additional Studies: 2/19/2013 6:46:25 PM

## Image Nr. 1 taken 2/19/2013 6:45 PM



Image Nr. 2 taken 6/20/2013 6:00 PM


## Conclusions and Recommendations: 19.02.2013 18:47:06

-Diagnosis:
-Type VI Androgenetic hair loss (Norwood-Hamilton classification), Monilethrix.:
-List of diagnoses:
Alopecia Androgenetica (Male Pattern Hair Loss)
Type VI (Norwood-Hamilton classification)

## Hair shaft defects with increased fragility

-Monilethrix

## -Conclusions and Recommendations:

Hair growth assessment
Trichoscopy
Dermatoscopy
Classic Trichogram
Phototrichogram
Hair wash test
Growing hair test
Global Photographs
Iron status blood tests
Complete Blood Count (CBC)
Serum Ferritin
Serum Iron

Prostate-specific antigen
Prostate-specific antigen (PSA)
Hormone tests
Thyroid stimulating hormone (TSH)
Other testing
Hospital Anxiety and Depression Scale

## -Topical treatment:

Minoxidil
$5 \%$ minoxidil solution twice daily

## Topical antiseborrheic therapy

Ketoconazole shampoo
Topical Betamethasone Valerate foam

## -Oral therapy:

Systemic agents
Finasteride 1 mg /day

## -Physiotherapy:

Low-level laser light therapy (Hair Max Laser Comb)

## -Reference materials:

Hamilton-Norwood Scale, type


Type lil
Type VI


Criteria for differential diagnosis of androgenetic alopecia and diffuse telogen hair loss in men

| Criteria | Androgenetic alopecia | Telogen Diffuse Alopecia |  |
| :--- | :--- | :--- | :---: |
| Clinical history |  |  |  |


| Hair and scalp condition: |  |  |
| :---: | :---: | :---: |
| Intensity of hair loss: | Moderate or slightly-expressed |  |
| Duration of hairloss: | Over 6 months |  |
| Hair thinning: | Yes |  |
| Male Pattern Baldness: |  |  |
| Hamilton-Norwood Scale, type: | IV |  |
| Heredity factor in first degree relatives: | Yes |  |
| Scalp condition: | Greasy |  |
| Data of Trichologic objective study |  |  |
| Trichoscopy <br> Terminal hair count in parietal area | Less than 250 for sq.cm. | Over 250 for sq.cm. |
| Trichoscopy <br> Average Terminal hair diameter without Vellus hair accounted | In parietal area is less than in occipital | In parietal area is more than in occipital |
| Trichoscopy <br> Percent of Vellus hair in parietal area | More than 20\% | Less than 20\% |
| Trichoscopy <br> Anisotrichosis in parietal area | Over 12 for parietal area | Less than 12 for parietal area |
| Trichoscopy Presence of thin, medium and thick hair in parietal area | Presence of all types | Presence of 2 types out of 3 |
| Trichoscopy <br> Yellow dots <br> Pointed hairs (in parietal area) | Yellow dots applicable Presence of all types | No yellow dots. <br> Pointed hairs possible |
| Phototrichogram: <br> Percent of Telogen hair in parietal and occipital areas | Over $15 \%$ of Telogen hair.More in parietal area vs occipital | Over 15\% of Telogen hair. <br> More (or equal) in occipital area |
| Phototrichogram: <br> Proportion of Vellus among Telogen hair | >30\% | <30\% |


| in parietal area |  |  |
| :---: | :---: | :---: |
| Presence of anxiety or depression |  | Yes |
| Health conditions: |  |  |
| Condition of nervous system: |  | Anxiety |
| Routine care and treatment efficacy: |  |  |
| Dandruff: | Some |  |
| Seborrheic dermatitis: | Areas of redness |  |
| Body Mass Index (BMI) | Within 18.5-24.9 | Less than 18.5 |
|  | Androgenetic alopecia (34 Points) | Telogen Diffuse Alopecia (8 Points) |
| Conclusion | - Monilethrix <br> - Sensitive Scalp <br> - Dysplasia of hair roots <br> - Lentigo Simolex <br> - Prurigo nodularis <br> - Subclinical depression. Clinical anxiety. |  |


[^0]:    Mean diameter of Terminal among Anaqen: 58pm
    Mean diameter of Terminal among Teloqen: 50 pm
    Mean diameter of Vellus among Anaqen: 34pm
    Mean diameter of Vellus among Teloqen: 29pm
    Hair growth rate: $350 \mathrm{pm}[0.35 \mathrm{~mm}$ ) per 24 hours

