



**Fig 1.** Hypofractionated radiotherapy for facial basal cell carcinomas. Patient deemed unfit for surgery due to its significant invasiveness and the need for demanding reconstructive plastic surgery. The photos show the patient before radiotherapy (**A**) and at 8 weeks (**B**), 6 months (**C**) and 12 months (**D**) after the end of radiotherapy.

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<http://dx.doi.org/10.1016/j.jaad.2015.03.030>

### Digital dermoscopy monitoring in patients with multiple nevi: How many lesions should we monitor per patient?

*To the Editor:* Digital dermoscopy monitoring (DDM) of melanocytic lesions in patients with multiple nevi (>50 nevi) or atypical mole syndrome (AMS) have been demonstrated to increase early melanoma detection, while minimizing the unnecessary excision of benign lesions.<sup>1</sup> Several studies have investigated different follow-up protocols to determine the best strategy for optimizing clinical outcome and patient compliance.<sup>2-5</sup> However, data are lacking, especially in the context of the number of lesions to monitor per patient.<sup>2</sup>

We conducted an online survey among the 90 board members of the International Dermoscopy

Society to determine current behaviors in the use of DDM. The questionnaire included 9 questions regarding (1) age; (2) gender; (3) work setting; (4) percentage of skin cancer patients seen per year; (5) number of primary melanomas diagnosed per year; (6) attitude for using DDM; (7) attitude for imaging all lesions or selected lesions; (8) number of selected lesions imaged; (9) use of total body photography (TBP).

Seventy-five board members (83.3%) participated in the survey. The majority (n = 60, 80%) indicated that they perform DDM in patients with multiple nevi or AMS (Table 1). Among these, only 8 (13.3%) reported that they image all lesions in a given patient, whereas 52 (86.7%) reported that they select skin lesions for DDM, with almost 60% reporting that they image fewer than 10 lesions per patient. Interestingly, the great majority (n = 56, 74.7%) of the interviewed members declared they use TBP. Moreover, 8 of the 15 participants (53.3%) who did not use a DDM, stated that they perform TBP.

To analyze factors influencing the decision to select or to monitor all lesions per patient, we used Spearman's rho coefficient to flag significant correlations, which were subsequently quantified via logistical regression. We expected that the decision to select lesions to monitor would depend

**Table I.** Results of the survey

	DDM of selected lesions	DDM of all lesions	Total (% of the total participants)
Number of participants	52 (86.7%)	8 (13.3%)	60 (80%)
Mean age	48.6	55.1	49.6
Male sex	35 (67.3%)	5 (62.5%)	40 (53.3%)
Working in public	40 (76.9%)	6 (75%)	46 (61.3%)
Working in private	11 (21.2%)	2 (25%)	13 (17.3%)
Skin cancer patient per year			
<10	2 (3.5%)	1 (12.5%)	3 (4%)
11-30	13 (25%)	3 (37.5%)	16 (21.3%)
31-50	14 (26.9%)	2 (25%)	16 (21.3%)
>50	23 (44.2%)	2 (25%)	25 (33.3%)
New melanomas per year			
<10	3 (5.8%)	3 (37.5%)	6 (8%)
11-30	18 (34.6%)	2 (25%)	20 (26.7%)
>30	31 (59.6%)	3 (37.5%)	34 (45.3%)
Lesions monitored per patient			
1-10	30 (57.7%)	—	—
11-20	14 (26.9%)		
21-30	4 (7.7%)		
>30	4 (7.7%)		
Total body photography	41 (78.7%)	7 (87.5%)	48 (64%)

DDM, Digital dermoscopy monitoring.

on several factors, namely lack of time or increasing experience. All surveyed doctors were experienced dermoscopists, and no differences were found among those working in a private or in a public setting.

Monitoring attitude significantly correlated with age ( $\rho = 0.274$ ,  $P = .034$ ) and number of melanomas diagnosed each year ( $\rho = 0.273$ ,  $P = .035$ ). More specifically, older doctors tend to monitor all lesions, with 11% higher odds for each year of age added (OR = 1.11, 95% CI 1.003-1.228,  $P = .044$ ). In contrast, doctors diagnosing more melanomas per year are more likely to select lesions to monitor. In detail, if the number of new melanomas per year is 11 to 30 or greater than 30, it is at least 9 times less likely that the physician will monitor all lesions (11-30, OR = 0.111, 95% CI 0.013-0.970,  $P = .047$ ; >30, OR = 0.097, 95% CI: 0.013-0.709,  $P = .022$ ).

In conclusion, this survey supports that DDM is a widely used method among clinicians dealing with patients with multiple nevi. Interestingly, the majority of respondents apply a combination of dermoscopy and TBP, underlying the importance of a combined approach when dealing with high-risk patients. The survey also highlighted the broad range of protocols in DDM. A study comparing the efficacy of the 2 monitoring approaches, namely DDM alone or DDM plus TBP, is needed in order to standardize the methodology and optimize patient care.

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*On behalf of the International Dermoscopy Society board members Monika Arenbergerova, Angelo Azenba, Renato Bakos, Jadran Bandic, Reuven Bergman, Andreas Blum, Jonathan Bowling, Ralph Braun, Lieve Brochez, Matilda Bylaite, Horacio Cabo, Raul Cabrera, Leo Cabrijan, Blanca Carlos, Sergio Chimenti, Joel Claveau, Alessandro Di Stefani, Huiting Dong, Gerardo Ferrara, Ana-Maria Forsea, Spyridon Gkalpakiotis, James Grichnik, Holger Haenssle, Allan Halpern, Hana Helpikangas, Rainer Hofmann-Wellenbof, Raimond Karls, Isil Kilinc Karaarslan, Harald Kittler, Hiroshi Koga, Juergen Kreuzsch, Nicole Kukutch, David Langford, Ashfaq Marghoob, Iona McCormack, Scott Menzies, Josep Malvehy, Cesare Massone, Lali*

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Funding sources: None.

Conflicts of interest: None declared.

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<http://dx.doi.org/10.1016/j.jaad.2015.03.033>

#### Autologous cell suspension transplantation using a cell extraction device in segmental vitiligo and piebaldism patients: A randomized controlled pilot study

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To the Editor: Stable vitiligo and piebaldism can be repigmented by autologous cell suspension transplantation (CST).<sup>1</sup> Previously, specialized laboratories were necessary for preparation of cell suspensions. A cell extraction device (CED, ReCell, Avita Medical, Cambridge, UK) obviates this need.<sup>2</sup> However, little reliable data on this technique

are available. We performed a single-center, randomized, observer blinded, inpatient controlled pilot study on the repigmentation ability, tolerability, patient satisfaction, and cellular suspension composition of the CST-CED method. Three depigmented lesions of 9 cm<sup>2</sup> were randomly allocated to receive the following treatments (Fig 1): (1) CO<sub>2</sub> laser ablation plus autologous cell suspension (CST-CED); (2) CO<sub>2</sub> laser ablation (CO<sub>2</sub> control); (3) no treatment (no-treatment control). A split-thickness skin biopsy of approximately 4 cm<sup>2</sup> and 0.2 mm thickness was harvested from the hip using an electric dermatome (D42, Humeca, Beverwijk, Netherlands). The cell suspensions were produced using the CED.<sup>2</sup> First, the split skin was placed in the battery heated well of the device containing trypsin enzyme solution. After 15 minutes, epidermal cells could be disaggregated from the dermis with a scalpel. The cells were rinsed in the second well of the device with buffered sodium lactate solution. The suspension was applied onto the sites in a 1:5 expansion ratio. Laser treatments were performed with a 10,600 nm CO<sub>2</sub> laser (Ultrapulse, Lumenis ActiveFx hand piece, Santa Clara, CA) with 1 pass of 200 mJ (estimated depth 209 μm), 60 W, density 3 (full coverage). Four weeks after treatment, UVA-treatment (924T Eurosolar Facial Tanner, Beusichem, Netherlands) was administered to the treatment and control sites.<sup>3</sup> The primary outcome of our study was the percentage of repigmentation 6 months after study intervention using a digital image analysis system.<sup>4</sup> An investigator blinded to treatment allocation assessed side effects. Patients reported satisfaction. Cell counts and viability were assessed using a microscope (Leica DM2000, Leica Microsystems, Eindhoven, Netherlands) using trypan blue solution (Sigma-Aldrich Chemie, Zwijndrecht, Netherlands), and flow cytometry (FACS Canto II, Becton Dickinson, Breda, Netherlands), with Flow Jo software (Tristar, Ashland, OR).

Five patients with stable segmental vitiligo and 5 patients with piebaldism were included. The median repigmentation in 10 patients (mean age 34, 60% male) was 78%, 0%, and 0% for the CST-CED, the CO<sub>2</sub> control, and the no-treatment control sites, respectively ( $P = .001$ , Friedman test, Fig 2). Sixty percent of the CST-CED sites showed greater than 75% repigmentation. Repigmentation was assessed as good or excellent by 70% of the patients in the CST-CED sites. No long-term side effects were seen in the recipient sites. Two donor sites showed mild textural change. Fig 3 shows a positive correlation between the percentage of repigmentation and the total number of all viable cells transplanted