

Study	Case	Treatment
Kamiya et al [1]. Localized cutaneous argyria in a silversmith	silversmith	No treatment
Beutler et al [2]. Localized cutaneous argyria: Report of two patients and literature review	sites directly adjacent to ear piercings	No treatment
McClain et al [3]. Localized cutaneous argyria: two case reports and clinicopathologic review.	Case 1: Localized argyria since childhood resembling blue nevus Case 2: Remote history of occupational exposure to silver, blue macule on left thumb	No treatment
Karakasli et al [4]. Dermal argyria: Cutaneous manifestation of a megaprosthesis for distal femoral osteosarcoma	Development of permanent blue-gray discoloration over incision site one year post silver coated tibial/femoral prosthesis implantation	No treatment
Kubba et al [5]. Argyria an unrecognized cause of cutaneous pigmentation in Indian patients: a case series and review of the literature.	4 patients presenting with grey-blue pigmentation particularly in sun-exposed areas after long-term ingestion of silver coated cardamoms and betel nut, respectively	No treatment
Garcias-Ladaria et al [6]. Localized cutaneous argyria: a report of 2 cases.	Blue macules on right fourth finger for 5-10 years and on the dorsum of both hands for 5 years, respectively, after occupational exposure to silver for 30+ years as jewelers	No treatment
Hristov et al [7]. Localized cutaneous argyria.	Solitary, blue-gray papule on the elbow resembling a blue nevus due to potential traumatic entrance of mirror fragments into the skin	No treatment
Krejci-Manwaring et al [8]. What is your diagnosis? Argyria.	Gray skin discoloration, esp. on the face and arms, after daily consumption of 1 qt of colloidal silver water for 1 year	No treatment

Rumayor Piña et al [9]. Cutaneous amalgam tattoo in a dental professional: an unreported occupational argyria.	Dark macule on face, presumptively acquired due to trauma while working as a dentist	Surgical removal
Han et al [10]. Successful treatment of argyria using a low-fluence Q-switched 1064-nm Nd:YAG laser.	Blue-gray skin discoloration of the face, sclera, conjunctivae, gingiva, soft palate after the daily consumption of 1 liter of colloidal silver solution for 1 year	Q-switched 1064 nm Nd:YAG laser (0.7-1.3 J/cm ² , pulse duration: 5 ns, 7 mm spot size laser-toning) → normal skin color after 7 laser treatments
Garcia-Martinez et al [11]. In vivo reflectance confocal microscopy characterization of silver deposits in localized cutaneous argyria.	Multiple blue to black macules on left forearm and hand in a silversmith	No treatment
Alés-Fernández et al [12]. Localized argyria secondary to acupuncture mimicking blue nevus.	secondary to an acupuncture needle	No treatment
Schrauben et al [13]. A case of argyria: multiple forms of silver ingestion in a patient with comorbid schizoaffective disorder.		
Gorayski et al [14]. Severe acute radiation dermatitis in a patient with argyria.	Generalized argyria after colloidal silver consumption for 10 months, concomitant Merkel cell carcinoma	Argyria: no treatment
Rackoff et al [15]. Localized cutaneous argyria from an	localized cutaneous argyria from an acupuncture needle	No treatment

acupuncture needle clinically concerning for metastatic melanoma.		
Amber et al [16]. Blue skin.	Blue discoloration of the eyes, face, neck, fingernails after daily consumption of half a cup of colloidal silver for 15 to 20 years	No treatment
Morton et al [17]. Localized argyria caused by silver earrings.	caused by silver earrings	No treatment
Utikal et al [19]. Local cutaneous argyria mimicking melanoma metastases in a patient with disseminated melanoma.	Blue-black macules and papules on left leg after application of 0.1% silver nitrate cream twice daily for 5 weeks	Spontaneous resolution within 4 weeks
Pariser [20]. Generalized argyria. Clinicopathologic features and histochemical studies.	Case 1: Gray skin discoloration, esp. on the face, arms, and neck, histology: silver deposition Case 2: Faint bluish discoloration of the proximal nail beds, history of silver-containing nose drop use Case 3: 58 yo M, history of having his throat painted with silver protein from age 3 to 12 to prevent and treat colds, discoloration of the skin since childhood that decreased as an adult	No treatment
Shall et al [21]. An unusual case of acquired localized argyria.	Blue-grey, slowly enlarging lesion behind the left ear, most likely due to silver earring back	Surgical excision
Dietl et al [22]. Brain involvement in generalized argyria.	autopsy study	No treatment
Suzuki et al [23]. Localized argyria with chrysiasis caused by implanted acupuncture needles. Distribution and chemical forms of silver and gold in	Pigmented macules on forehead and neck, status post acupuncture needle treatment & onset of the development of blue-black macules 1 year later	No treatment

cutaneous tissue by electron microscopy and x-ray microanalysis.		
Sarasa et al [24]. Cutaneous argyria.		
Browning et al [25]. Argyria attributed to silvadene application in a patient with dystrophic epidermolysis bullosa.	argyria following application of silver sulfadiazine in a patient with epidermolysis bullosa	no treatment
Brandt et al [26]. Argyria secondary to ingestion of homemade silver solution.	Blue-gray discoloration of sun-exposed skin after the daily consumption of 237 ml of colloidal silver solution for 4 days	No treatment
White et al [27]. Severe generalized argyria secondary to ingestion of colloidal silver protein.	Skin discoloration of the face, neck, arms, hands, and scalp after daily consumption of colloidal silver protein solution for over 1 year	No treatment
Friedmann et al [28]. Localized Cutaneous Argyria From a Nasal Piercing Successfully Treated with a Picosecond 755-nm Q-Switched Alexandrite Laser.	Blue-gray macule on right nasal ala after the use of a silver-containing nasal piercing before healing was completed	Picosecond 755-nm Q-switched alexandrite laser (750 ps pulse duration, 3 mm spot size, 2.83 J/cm ² fluence, 10 Hz frequency) Improvement/return to normal skin color after 2 laser treatments
Saager et al [29]. Quantitative near infrared spectroscopic analysis of Q-Switched Nd:YAG treatment of generalized argyria	Generalized blue-gray skin discoloration after consumption of a colloidal silver solution for 10 months	Q-switched 1,064 nm Nd:YAG laser treatment (3–6 mm spot size; 0.8–2 J/cm ²) No recurrence at 1-year follow-up

<p>Hovenic et al [30]. Treatment of argyria using the quality-switched 1,064-nm neodymium-doped yttrium aluminum garnet laser: efficacy and persistence of results at 1-year follow-up.</p>	<p>Gray-blue skin discoloration due to colloidal silver ingestion, status post hydroquinone treatment without success</p>	<p>Q-switched 1,064 nm Nd:YAG laser treatment (8 mm spot size; 1.5 J/cm² fluence) No recurrence at 1-year follow-up</p>
<p>Rhee et al [31]. Treatment of argyria after colloidal silver ingestion using Q-switched 1,064-nm Nd:YAG laser.</p>	<p>Gray skin discoloration of the face and hands after with colloidal silver ingestions for 2 weeks</p>	<p>Q-switched 1,064-nm Nd:YAG laser treatment (5 nanoseconds pulse duration, 2 mm spot size; 6.5 J/cm² fluence)</p>
<p>Gottesman et al [32]. Immediate successful treatment of argyria with a single pass of multiple Q-switched laser wavelengths.</p>	<p>Blue-gray skin discoloration on sun-exposed skin</p>	<p>Trial treatment with 3 different Q-switched laser wavelengths: ruby at 694 nm, alexandrite at 755 nm, and Nd:YAG at 1064 nm, immediate clearing with all 3 lasers.</p>
<p>Park et al [33]. An Effective Modality for Argyria Treatment: Q-Switched 1,064-nm Nd:YAG Laser.</p>	<p>Blue-gray skin discoloration on the face after colloidal silver ingestion for 2 years</p>	<p>Q-switched 1,064 nm Nd:YAG laser treatment (6 nanoseconds pulse duration, 4 mm spot size; 8 J/cm² fluence)</p>
<p>Fisher et al [34]. Scar-localized argyria secondary to silver sulfadiazine cream.</p>	<p>Blue-gray chest discoloration status post CABG complicated by delayed wound healing and treatment with silver sulfadiazine cream</p>	<p>No treatment.</p>
<p>Okan et al [37]. So what if you are blue? Oral colloidal silver and argyria are out: safe dressings are in.</p>	<p>Gray-blue skin discoloration after daily colloidal silver consumption of 1.5 to 2.5 mg for 2 years</p>	<p>No treatment</p>

Gülseren et al [38]. Reflectance confocal microscopy and dermatopathologic findings of cutaneous argyria after colloidal silver ingestion.	Blue-grey skin discoloration of the face and neck after colloidal silver consumption for 6 months	No treatment
Kwon et al [39]. A case of argyria following colloidal silver ingestion.	Gray skin discoloration of the after daily consumption of colloidal silver for 5+ years	Improvement after discontinuation of colloidal silver, use of sunscreen
Fox et al [40]. Chromonychia in an Asymptomatic Vitamin Consumer.	Azure lunulae of argyria, history of self-treatment of sore throats with 0.5 mg per serving silver dilutions for 20+ years	No treatment due to concern for possible side effects of 1,064-nm Q-switched Nd:YAG laser on nails
Massi et al [41]. Human generalized argyria: a submicroscopic and X-ray spectroscopic study.		
Jung et al [42]. A case of generalized argyria presenting with muscle weakness.	Gray-blue patches on the face and nails after daily consumption of 0.8 to 1.2 l colloidal silver solution for 1 year, concomitant polymyositis	Weakness: steroid taper, discharge to rehab on 22 nd day of hospitalization Skin discoloration: no treatment
Pardo-Peret et al [43]. Argyriasis. Report of a case	Gray-blue generalized skin, nail, hair, oral and gingival mucosa discoloration after a 25-month history of colloidal silver ingestion	No treatment
Maitre et al [44]. Increased serum and urinary levels of silver during treatment with topical silver sulfadiazine.	Systemic argyria in two cases of per cutaneous intoxication with topical silver sulfadiazine.	No treatment

Supplementary Table 1

Treatment for cutaneous argyria includes discontinuation of the causing agent, as well as sun protection to avoid reactions with UV light [5 37 39]. For refractory skin discolorations, treatment with Q-switched 1,064-nm Nd:YAG laser, or alternatively 694 nm ruby or 755 nm alexandrite, has been shown to be effective in several case reports, with the number of sessions varying from one to seven [10 28-33]. A potentially limiting side effect of laser therapy is significant pain during treatment [29].

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